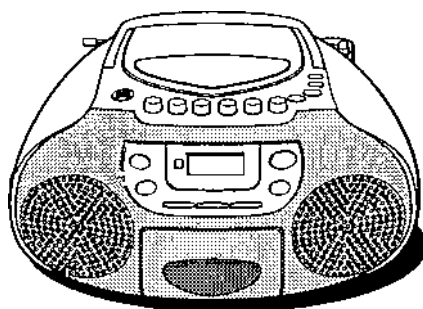


CSD-A360

LH(L,G,H,D)

CSD-A340

EZ(L)



SERVICE MANUAL

COMPACT DISC STEREO RADIO
CASSETTE RECORDER

BASIC TAPE MECHANISM : ZZM-1 AR2NC
BASIC CD MECHANISM : DA11T3C

aiwa

S/M Code No. 09-012-353-9N1



SPECIFICATIONS

A340 (EZ)

Tuner section

Frequency range, antenna — FM: 87.5 - 108.0 MHz
Rod antenna, MW: 530 - 1,605 kHz Ferrite bar antenna,
LW: 150 - 285 kHz Ferrite bar antenna

Deck section

Track format — 4 tracks, 2 channels / Frequency range
— Normal tape: 50 - 12,500 Hz (EIAJ) / Recording
system — AC bias / Erasing system — Magnet erase /
Heads — Recording/playback head (1), Erasure head
(1)

CD player section

Disc — Compact disc / Scanning method — Non-
contact optical scanner (semiconductor laser)

General

Speaker — 77 mm cone type (2) / Output —
Headphones jack (stereo mini-jack) / Power output —
2.9 W + 2.9 W (DIN MUSIC POWER), 2.5 W + 2.5 W
(EIAJ 7 ohms, T.H.D. 10% DC), 1.9 W + 1.9 W (DIN 1%
Rated Power) / Power requirements — DC 12 V using
eight size C (R14) batteries, AC 230 V, 50 Hz / Power
consumption — 15 W / Dimensions (W × H × D) — 310
× 163 × 260 mm / Weight — 2.7 kg (excluding batteries)

- Design and specifications are subject to change without notice.

A360 (LH)

Tuner section

Frequency range, antenna — FM: 87.5 - 108.0 MHz
Rod antenna, AM: 530 - 1,710 kHz Ferrite bar antenna

Deck section

Track format — 4 tracks, 2 channels / Frequency range
— Normal tape: 50 - 12,500 Hz (EIAJ) / Recording
system — AC bias / Erasing system — Magnet erase /
Heads — Recording/playback head (1), Erasure head
(1)

CD player section

Disc — Compact disc / Scanning method — Non-
contact optical scanner (semiconductor laser)

General

Speaker — 77 mm cone type (2) / Output —
Headphones jack (stereo mini-jack) / Power output —
2.5 W + 2.5 W (EIAJ 7 ohms, T.H.D. 10% DC), 1.9 W +
1.9 W (DIN 1% Rated Power) / Power requirements —
DC 12 V using eight size C (R14) batteries, AC 110-120
V/ 220-240 V switchable, 50/60 Hz / Power
consumption — 14 W / Dimensions (W × H × D) — 310
× 163 × 260 mm / Weight — 2.7 kg (excluding batteries)

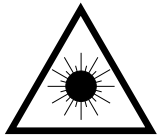
- Design and specifications are subject to change without notice.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylitävälle näkymättömälle lasersäteilylle.

WARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvisning, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

ATTENTION

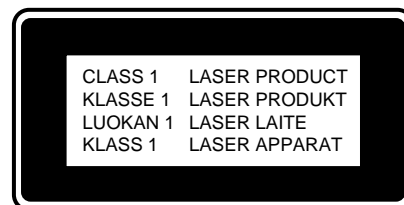
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL!

Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.

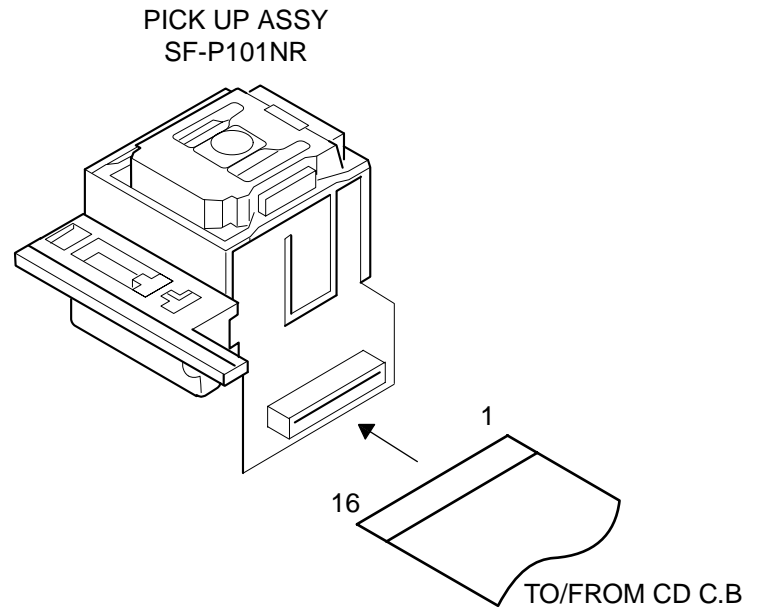
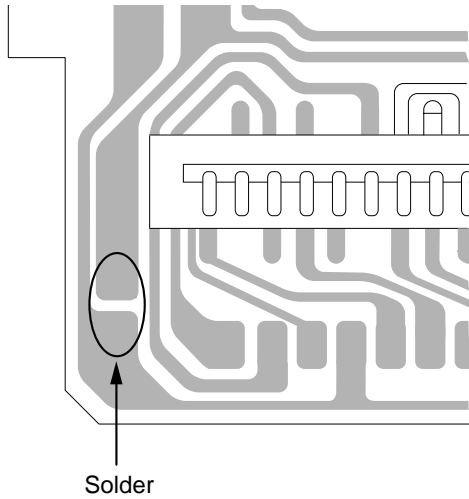
The CLASS 1 LASER PRODUCT label is located on the rear exterior.



Precaution to replace Optical block (SF-P101NR)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

- 1) After the connection, remove solder shown in the right figure.



ELECTRICAL MAIN PARTS LIST-1/4

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
IC				C401	87-010-403-080		CAP, ELECT 3.3-50V
	87-A20-955-010	IC,LA1828		C402	87-010-197-080		CAP, CHIP 0.01 DM
	87-A21-193-010	IC,TA8227P		C403	87-010-263-080		CAP, ELECT 100-10V
	87-A21-443-040	C-IC,M62495AFP		C404	87-010-248-080		CAP, ELECT 220-10V
	87-A20-446-010	C-IC,LA9241ML		C405	87-010-197-080		CAP, CHIP 0.01 DM
	87-A21-319-010	C-IC,LC78622NE		C406	87-010-374-080		CAP, ELECT 47-10V
	87-A21-891-010	C-IC,MM1469XH		C407	87-018-131-080		CAP, CER 1000P-50V
	8B-CDL-600-010	C-IC,LC865516A-5T66		C408	87-010-198-080		CAP, CHIP 0.022
	87-A21-431-010	IC,BA4560N		C409	87-010-248-080		CAP, ELECT 220-10V
				C410	87-010-263-080		CAP, ELECT 100-10V
TRANSISTOR				C411	87-A11-177-080		C-CAP,S 0.15-16 K B
	89-327-143-080	TR,2SC2714 (0.1W)		C412	87-010-401-080		CAP, ELECT 1-50V
	87-026-447-080	TR,2SC1740S R		C413	87-016-369-080		C-CAP,S 0.033-25 B K
	87-026-463-080	TR,2SA933S (0.3W)		C414	87-010-405-080		CAP, ELECT 10-50V
	87-A30-288-040	C-TR,DTC114YKA<EXCEPT 4EZLC>		C416	87-010-545-080		CAP, ELECT 0.22-50V
	87-026-213-080	CHIP-TR,DTC114YK<4EZLC>		C417	87-012-157-080		C-CAP,S 330P-50 CH
	89-327-126-010	TR,2SC2712		C418	87-010-213-080		C-CAP,S 0.015-50 B
	89-318-154-080	TR,2SC1815 (0.4W)		C419	87-A11-608-080		C-CAP,S 0.33-25 K B
	89-112-965-080	TR,2SA1296 (0.75W)		C420	87-016-369-080		C-CAP,S 0.033-25 B K
	87-026-291-080	TR,DTC124XS		C421	87-A11-177-080		C-CAP,S 0.15-16 K B
	89-213-702-080	TR,2SB1370E		C422	87-010-184-080		CHIP CAPACITOR 3300P(K)
	87-026-462-080	TR,2SC1740 S(RS 0.3W)		C423	87-010-992-080		C-CAP,S 0.047-25 B
	89-109-332-380	TR,2SA933RS		C424	87-016-460-080		C-CAP,S 0.22-16 B
	87-A30-515-080	TR,2SA19790/Y		C425	87-018-129-080		CAP, CER 680P-50V
	87-A30-287-040	C-TR,DTC114TKA		C426	87-A11-608-080		C-CAP,S 0.33-25 K B
	87-A30-435-040	C-TR,DTC144EK T146		C428	87-010-197-080		CAP, CHIP 0.01 DM
	87-026-215-080	TR,DTC114YS		C429	87-010-186-080		CAP,CHIP 4700P
	89-317-403-080	TR,2SC1740S		C430	87-012-156-080		C-CAP,S 220P-50 CH
	87-026-464-010	TR,DTC114TS		C431	87-010-545-080		CAP, ELECT 0.22-50V
	87-026-464-080	TR,DTC114TS (0.3W)		C432	87-010-374-080		CAP, ELECT 47-10V
DIODE				C433	87-010-401-080		CAP, ELECT 1-50V
	87-020-465-080	DIODE,ISS133 (110MA)		C434	87-010-184-080		CHIP CAPACITOR 3300P(K)
	87-A40-916-040	C-VARI-CAP,HVC202A		C435	87-010-197-080		CAP, CHIP 0.01 DM
	87-A40-509-080	ZENER,MTZJ6.8C		C436	87-010-374-080		CAP, ELECT 47-10V
	87-A40-648-080	ZENER,MTZJ8.2A		C437	87-010-404-080		CAP, ELECT 4.7-50V
	87-A40-234-080	ZENER,MTZJ5.6A		C438	87-016-669-080		C-CAP,S 0.1-25 K B
	87-017-978-080	DIODE,1N4003		C439	87-010-178-080		CHIP CAP 1000P
	87-A40-344-080	ZENER,MTZJ6.2C		C440	87-018-139-080		CAP,TC-U 1P-50 CH
	87-070-345-080	DIODE,1N4148		C441	87-010-197-080		CAP, CHIP 0.01 DM
	87-A40-347-080	ZENER,MTZJ2.2B		C442	87-A10-140-010		CAP,CER 22P-50 K CH
	87-A40-465-010	DIODE,FR202		C445	87-012-368-080		C-CAP,S 0.1-50 F
MAIN-CD C.B				C446	87-012-368-080		C-CAP,S 0.1-50 F
C30	87-010-260-080	CAP, ELECT 47-25V		C447	87-012-368-080		C-CAP,S 0.1-50 F
C251	87-010-404-080	CAP, ELECT 4.7-50V		C448	87-010-315-080		C-CAP,S 27P-50 CH
C263	87-010-426-080	C-CAP,S 0.012-25 B		C451	87-012-156-080		C-CAP,S 220P-50 CH
C264	87-010-426-080	C-CAP,S 0.012-25 B		C455	87-010-247-080		CAP, ELECT 100-50V
C265	87-010-263-080	CAP, ELECT 100-10V		C457	87-010-312-080		C-CAP,S 15P-50 CH
C266	87-010-263-080	CAP, ELECT 100-10V		C458	87-010-312-080		C-CAP,S 15P-50 CH
C267	87-010-112-080	CAP, ELECT 100-16V		C459	87-010-263-080		CAP, ELECT 100-10V
C268	87-010-112-080	CAP, ELECT 100-16V		C460	87-015-819-080		CAPACITOR,0.01
C271	87-010-221-080	CAP, ELECT 470-10V		C461	87-010-197-080		CAP, CHIP 0.01 DM
C272	87-010-221-080	CAP, ELECT 470-10V		C462	87-010-248-080		CAP, ELECT 220-10V
C278	87-010-384-080	CAP, ELECT 100-25V		C463	87-018-134-080		CAPACITOR,TC-U 0.01-16
C279	87-010-385-080	CAP, ELECT 220-25V		C465	87-010-404-080		CAP, ELECT 4.7-50V
△C301	87-016-495-000	CAP,E 3300-25 M SMG		C466	87-012-368-080		C-CAP,S 0.1-50 F
C306	87-010-404-080	CAP, ELECT 4.7-50V		C467	87-010-263-080		CAP, ELECT 100-10V
C307	87-010-401-080	CAP, ELECT 1-50V		C469	87-012-154-080		C-CAP,S 150P-50 CH
C308	87-010-221-080	CAP, ELECT 470-10V		C471	87-012-368-080		C-CAP,S 0.1-50 F
C311	87-010-404-080	CAP, ELECT 4.7-50V		C472	87-015-785-080		CHIP CAPACITOR, 0.1FZ-25Z
C312	87-010-385-080	CAP, ELECT 220-25V		C473	87-012-368-080		C-CAP,S 0.1-50 F
C317	87-015-819-080	CAPACITOR,0.01		C474	87-015-785-080		CHIP CAPACITOR, 0.1FZ-25Z
C321	87-010-197-080	CAP, CHIP 0.01 DM		C475	87-018-134-080		CAPACITOR,TC-U 0.01-16
C322	87-010-263-080	CAP, ELECT 100-10V		C476	87-010-236-080		CAP,E 1000-10 SME
C324	87-010-260-080	CAP, ELECT 47-25V		C477	87-010-197-080		CAP, CHIP 0.01 DM
C325	87-010-405-080	CAP, ELECT 10-50V		C478	87-010-263-080		CAP, ELECT 100-10V
				C479	87-010-197-080		CAP, CHIP 0.01 DM
				C480	87-010-221-080		CAP, ELECT 470-10V
				C481	87-010-405-080		CAP, ELECT 10-50V
				C482	87-010-405-080		CAP, ELECT 10-50V
				C489	87-012-368-080		C-CAP,S 0.1-50 F

ELECTRICAL MAIN PARTS LIST-2/4

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C490	87-012-368-080		C-CAP,S 0.1-50 F	C830	87-010-178-080		CHIP CAP 1000P
C491	87-018-134-080		CAPACITOR,TC-U 0.01-16	C834	87-010-248-080		CAP, ELECT 220-10V
C492	87-010-221-080		CAP, ELECT 470-10V	C843	87-018-134-080		CAPACITOR,TC-U 0.01-16
C493	87-010-180-080		C-CER 1500P	C844	87-018-124-080		CAP, CER 270P-50V
C501	87-012-368-080		C-CAP,S 0.1-50 F	C845	87-010-178-080		CHIP CAP 1000P
C502	87-010-322-080		C-CAP,S 100P-50 CH	C846	87-010-263-080		CAP, ELECT 100-10V
C503	87-018-119-080		CAP, CER 100P-50V	C851	87-018-133-080		CAPACITOR,CER 4700P-16V
C504	87-010-322-080		C-CAP,S 100P-50 CH	C852	87-018-131-080		CAP, CER 1000P-50V
C505	87-010-322-080		C-CAP,S 100P-50 CH	C853	87-A11-145-080		CAP,TC U 0.01-50 Z F
C506	87-010-322-080		C-CAP,S 100P-50 CH	C889	87-010-196-080		CHIP CAPACITOR,0.1-25
C510	87-016-669-080		C-CAP,S 0.1-25 K B	CN201	87-099-757-010		CONN,16P 9604S F
C831	87-010-198-080		CAP, CHIP 0.022	CN701	87-A60-109-010		CONN,2P V S2M-2W
CN202	8A-CH4-687-010		CONN,4P V 2.5	CN801	87-A60-110-010		CONN,4P V S2M-4W
CN205	87-A60-109-010		CONN,2P V S2M-2W	CNA302	8A-CD9-629-010		CONN ASSY,6P MA-TU
CN301	8A-CH4-689-010		CONN,3P V 2.5	L301	87-005-165-080		COIL 1UH (H,E)
CN401	87-A60-424-010		CONN,16P V TOC-B	L302	87-005-165-080		COIL 1UH (H,E)
CN403	87-099-201-010		CONN,8P 6216 H	L303	87-005-165-080		COIL 1UH (H,E)
CN802	8A-CH4-687-010		CONN,4P V 2.5	L801	87-007-342-010		COIL,OSC 85K BIAS
CNA402	8A-CD9-625-010		CONN ASSY,6P CD-ME	SW801	8Z-CD9-609-010		SW,SL 1-6-2 PS62D01
HP1	S2-3B0-112-000		JACK,HP 3.5				
L401	87-003-102-080		COIL, 10UH				
L404	87-003-152-080		COIL, 100UH				
R840	87-029-124-010		RES,FUSE 2.2-1/4				
SFR430	87-024-437-080		SFR100K,RH063EC				
X401	8Z-CD5-633-010		VIB, CER16.93MHZ FCR16.93M2				
MAIN-TP C.B				FRONT C.B			
C211	87-012-142-080		CAP, S 0.33-16	C601	87-010-313-080		CAP, CHIP 18P
C212	87-012-142-080		CAP, S 0.33-16	C602	87-010-315-080		C-CAP,S 27P-50 CH
C215	87-016-460-080		C-CAP,S 0.22-16 B	C603	87-010-319-080		C-CAP,S 56P-50 CH
C216	87-016-460-080		C-CAP,S 0.22-16 B	C604	87-010-317-010		CHIP CAP,S 39P CH
C231	87-010-213-080		C-CAP,S 0.015-50 B	C605	87-010-264-040		CAP,E 100-10 5L
C232	87-010-213-080		C-CAP,S 0.015-50 B	C607	87-012-368-080		C-CAP,S 0.1-50 F
C233	87-012-142-080		CAP, S 0.33-16	C608	87-010-401-080		CAP, ELECT 1-50V
C234	87-012-142-080		CAP, S 0.33-16	C609	87-010-400-080		CAP, ELECT 0.47-50V
C235	87-016-669-080		C-CAP,S 0.1-25 K B	C611	87-A10-189-040		CAP,E 220-10
C236	87-016-669-080		C-CAP,S 0.1-25 K B	C613	87-012-368-080		C-CAP,S 0.1-50 F
C237	87-010-371-080		CAP, ELECT 470-6.3V	C614	87-010-312-080		C-CAP,S 15P-50 CH
C239	87-018-134-080		CAPACITOR,TC-U 0.01-16	C617	87-012-368-080		C-CAP,S 0.1-50 F
C240	87-018-134-080		CAPACITOR,TC-U 0.01-16	C618	87-012-368-080		C-CAP,S 0.1-50 F
C247	87-010-401-080		CAP, ELECT 1-50V	C628	87-018-211-080		CAP, CER 0.01-50
C248	87-010-401-080		CAP, ELECT 1-50V	C630	87-018-119-080		CAP, CER 100P-50V
C310	87-010-248-080		CAP, ELECT 220-10V	C631	87-018-119-080		CAP, CER 100P-50V
C316	87-010-263-080		CAP, ELECT 100-10V	C632	87-018-119-080		CAP, CER 100P-50V
C317	87-015-819-080		CAPACITOR,0.01	C638	87-018-211-080		CAP, CER 0.01-50
C701	87-010-545-080		CAP, ELECT 0.22-50V	CN601	87-099-757-010		CONN,16P 9604S F
C702	87-010-400-080		CAP, ELECT 0.47-50V	CN602	87-099-201-010		CONN,8P 6216 H
C703	87-010-405-080		CAP, ELECT 10-50V	CNA604	8B-CDB-616-010		CONN ASSY,3P V ORN KEY
C704	87-010-248-080		CAP, ELECT 220-10V	L601	87-003-102-080		COIL, 10UH
C705	87-010-400-080		CAP, ELECT 0.47-50V	L606	87-003-149-080		COIL,47UH
C707	87-010-405-080		CAP, ELECT 10-50V	L608	87-003-231-080		C-COIL 1UH
C708	87-010-405-080		CAP, ELECT 10-50V	L609	87-003-231-080		C-COIL 1UH
C709	87-016-369-080		C-CAP,S 0.033-25 B K	L611	87-003-231-080		C-COIL 1UH
C801	87-010-248-080		CAP, ELECT 220-10V	LED610	8A-CDA-646-010		LED,6224-10GD GRN<EXCEPT 4EZLC>
C805	87-012-365-080		C-CAP,S 0.027-25VBK	LED611	87-CD8-616-010		LED,SA36-11 HWA-11.0
C806	87-012-365-080		C-CAP,S 0.027-25VBK	S601	87-A91-704-080		SW,TACT EVQ 214 05R
C807	87-010-405-080		CAP, ELECT 10-50V	S602	87-A91-704-080		SW,TACT EVQ 214 05R
C808	87-010-405-080		CAP, ELECT 10-50V	S603	87-A91-704-080		SW,TACT EVQ 214 05R
C809	87-010-401-080		CAP, ELECT 1-50V	S604	87-A91-704-080		SW,TACT EVQ 214 05R
C810	87-010-401-080		CAP, ELECT 1-50V	S605	87-A91-704-080		SW,TACT EVQ 214 05R
C811	87-010-178-080		CHIP CAP 1000P	S606	87-A91-704-080		SW,TACT EVQ 214 05R
C812	87-010-178-080		CHIP CAP 1000P	S607	87-A91-704-080		SW,TACT EVQ 214 05R
C816	87-010-180-080		C-CER 1500P	S608	87-A91-704-080		SW,TACT EVQ 214 05R
C817	87-010-180-080		C-CER 1500P	X601	87-030-273-010		VIB,XTAL 32.768K5PPM
C821	87-010-401-080		CAP, ELECT 1-50V	X602	87-030-376-080		VIB,CER CSA5.76MG200
C822	87-010-401-080		CAP, ELECT 1-50V				
C823	87-010-178-080		CHIP CAP 1000P	KEY C.B			
C824	87-010-178-080		CHIP CAP 1000P	CN605	8Z-CS3-621-010		CONN,3P LED
C829	87-010-178-080		CHIP CAP 1000P	S609	87-A91-704-080		SW,TACT EVQ 214 05R<EXCEPT 4EZLC>
				S611	87-A91-704-080		SW,TACT EVQ 214 05R
				S614	87-A91-704-080		SW,TACT EVQ 214 05R
				S615	87-A91-704-080		SW,TACT EVQ 214 05R
				TUNER C.B			

ELECTRICAL MAIN PARTS LIST-3/4

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C1	87-010-314-080		C-CAP,S 22P-50V	C902	87-A11-146-080		CAP,TC U 0.022-50 Z F
C2	87-010-316-080		C-CAP,S 33P-50 CH	C903	87-A11-146-080		CAP,TC U 0.022-50 Z F
C3	87-010-314-080		C-CAP,S 22P-50V	C904	87-A11-146-080		CAP,TC U 0.022-50 Z F
C5	87-010-378-080		CAP, ELECT 10-16V	CNA901	8A-CD9-627-010		CONN ASSY,3P PWR
C7	87-012-156-080		C-CAP,S 220P-50 CH	△PR901	87-A90-092-080		PROTECTOR,2.5A 491
				SP901	87-CD6-213-010		SPR-C,BATT (-)
C8	87-010-197-080		CAP, CHIP 0.01 DM				
C9	87-010-311-080		CAP 12P	SP902	87-CD6-213-010		SPR-C,BATT (-)
C10	87-010-197-080		CAP, CHIP 0.01 DM				
C11	87-010-152-080		C-CAP,S 8P-50 CH	BATT2 C.B			
C12	87-010-314-080		C-CAP,S 22P-50V				
C13	87-010-322-080		C-CAP,S 100P-50 CH	SP903	87-CD6-213-010		SPR-C,BATT (-)
C14	87-010-148-080		CAP, CHIP S 75P SL	SP904	87-CD6-213-010		SPR-C,BATT (-)
C15	87-016-669-080		C-CAP,S 0.1-25 K B				
C16	87-010-178-080		CHIP CAP 1000P	MOTOR C.B			
C17	87-016-669-080		C-CAP,S 0.1-25 K B				
C18	87-010-198-080		CAP, CHIP 0.022	M2	S0-M10-A09-700		MOTOR SLED ASSY
C19	87-016-669-080		C-CAP,S 0.1-25 K B	PIN3	S2-369-750-000		PLUG,6P
C20	87-010-400-080		CAP, ELECT 0.47-50V	SW1	S4-S13-A01-600		SW,LEAF
C21	87-010-403-080		CAP, ELECT 3.3-50V				
C22	87-010-197-080		CAP, CHIP 0.01 DM				
C24	87-010-197-080		CAP, CHIP 0.01 DM<EXCEPT 4EZLC>				
C24	87-010-188-080		CAP,CHIP 6800P<4EZLC>				
C25	87-010-197-080		CAP, CHIP 0.01 DM<EXCEPT 4EZLC>				
C25	87-010-188-080		CAP,CHIP 6800P<4EZLC>				
C26	87-012-358-080		C-CAP,S 0.47-10 F Z				
C27	87-012-358-080		C-CAP,S 0.47-10 F Z				
C28	87-010-992-080		C-CAP,S 0.047-25 B				
C29	87-010-992-080		C-CAP,S 0.047-25 B				
C30	87-010-248-080		CAP, ELECT 220-10V				
C31	87-010-379-080		CAP, ELECT 22-16V				
C32	87-010-197-080		CAP, CHIP 0.01 DM				
C33	87-010-197-080		CAP, CHIP 0.01 DM				
C34	87-010-197-080		CAP, CHIP 0.01 DM				
C35	87-010-197-080		CAP, CHIP 0.01 DM				
C36	87-010-263-080		CAP, ELECT 100-10V				
C37	87-010-197-080		CAP, CHIP 0.01 DM				
C40	87-010-150-080		C-CAP,S 6P-50 CH<4EZLC>				
C41	87-010-321-080		CHIP CAPACITOR,82P(J)<4EZLC>				
C44	87-012-140-080		CAP 470P<4EZLC>				
C50	87-012-156-080		C-CAP,S 220P-50 CH				
C51	87-010-197-080		CAP, CHIP 0.01 DM				
C52	87-010-197-080		CAP, CHIP 0.01 DM				
C56	87-010-148-080		CAP, CHIP S 75P SL<EXCEPT 4EZLC>				
CF1	87-A90-128-010		FLTR,AM IF CFAL-455				
CF2	87-008-261-010		FILTER, SFE10.7MA5-A				
CF3	87-008-261-010		FILTER, SFE10.7MA5-A				
CN2	87-A60-116-010		CONN,6P H S2M-6WR				
L2	87-A50-560-010		COIL,FM BPF(ACD)				
L3	8A-CD9-660-010		BAR-ANT,MW 2B-ACD(COI)<EXCEPT 4EZLC>				
L3	8A-CD9-661-010		BAR-ANT,MW/LW 3B-ACD(COI)<4EZLC>				
L4	87-A50-562-010		COIL,FM RF EX(ACD)				
L5	87-A50-564-010		COIL,FM OSC EX(ACD)				
L6	87-A50-337-010		COIL,AM OSC (TOKO)<EXCEPT 4EZLC>				
L7	87-A50-579-010		COIL,AM IFT(ACD)				
L8	87-A50-335-010		COIL,FM IFT (TOKO)				
L9	87-A50-577-010		COIL,FM DET(ACD)				
L10	87-005-849-080		COIL,10UH(CECS)				
L16	87-A50-569-010		COIL,LW OSC-ACD(COI)<4EZLC>				
L17	87-A50-337-010		COIL,AM OSC (TOKO)<4EZLC>				
PVC1	87-A91-635-010		TUN-CAP,20P-140P E-ACD(MITSUMI<4EZLC>				
PVC1	87-A91-167-010		TUN-CAP,20P-160P FA-22125 N000<EXCEP 4EZLC>				
SW1	87-A91-548-010		SW,SL-2-3 SK23E01G06<EXCEPT 4EZLC>				
SW1	87-A91-549-010		SW,SL-6-4 SK64D01G06<4EZLC>				
TC5	87-011-253-080		TRIMER,30P LAR<4EZLC>				
TC6	87-011-253-080		TRIMER,30P LAR<4EZLC>				
BATT1 C.B							
C901	87-A11-146-080		CAP,TC U 0.022-50 Z F				

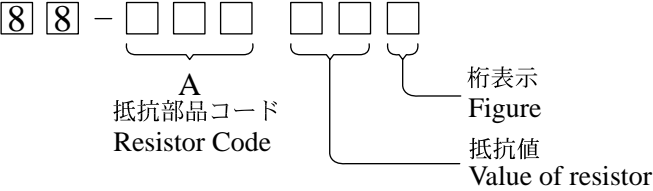
ELECTRICAL MAIN PARTS LIST-4/4

- Regarding connectors, they are not stocked as they are not the initial order items.
The connectors are available after they are supplied from connector manufacturers upon the order is received.

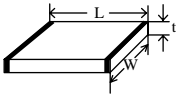
○チップ抵抗部品コード／CHIP RESISTOR PART CODE

チップ抵抗部品コードの成り立ち

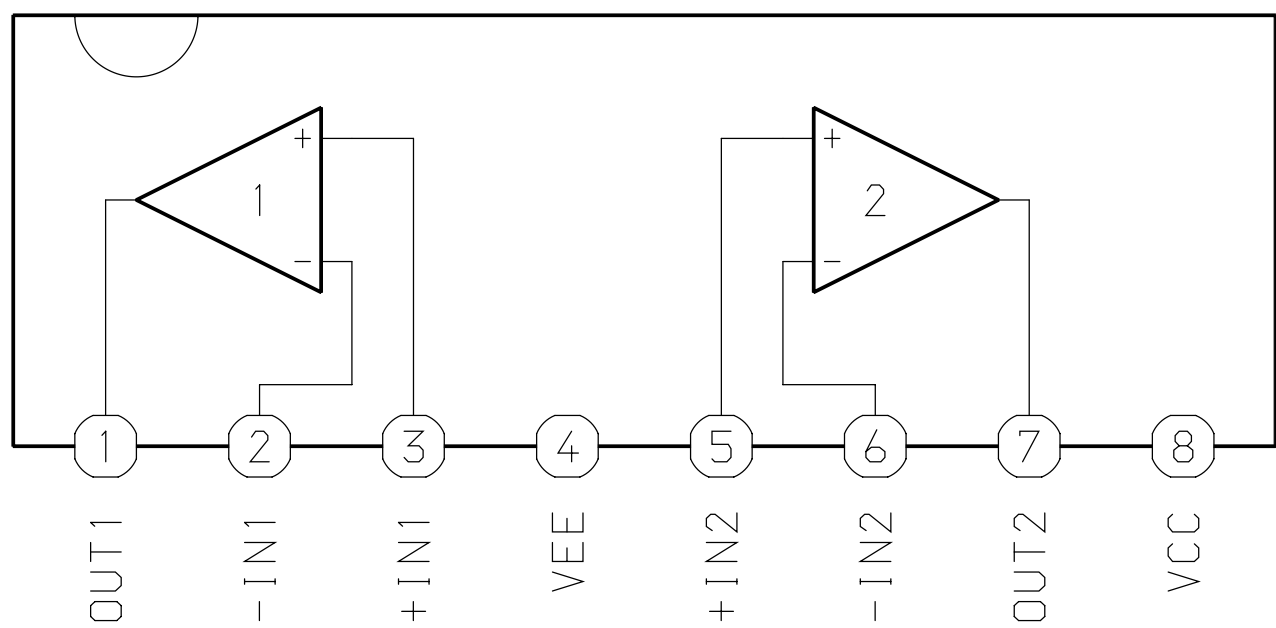
Chip Resistor Part Coding



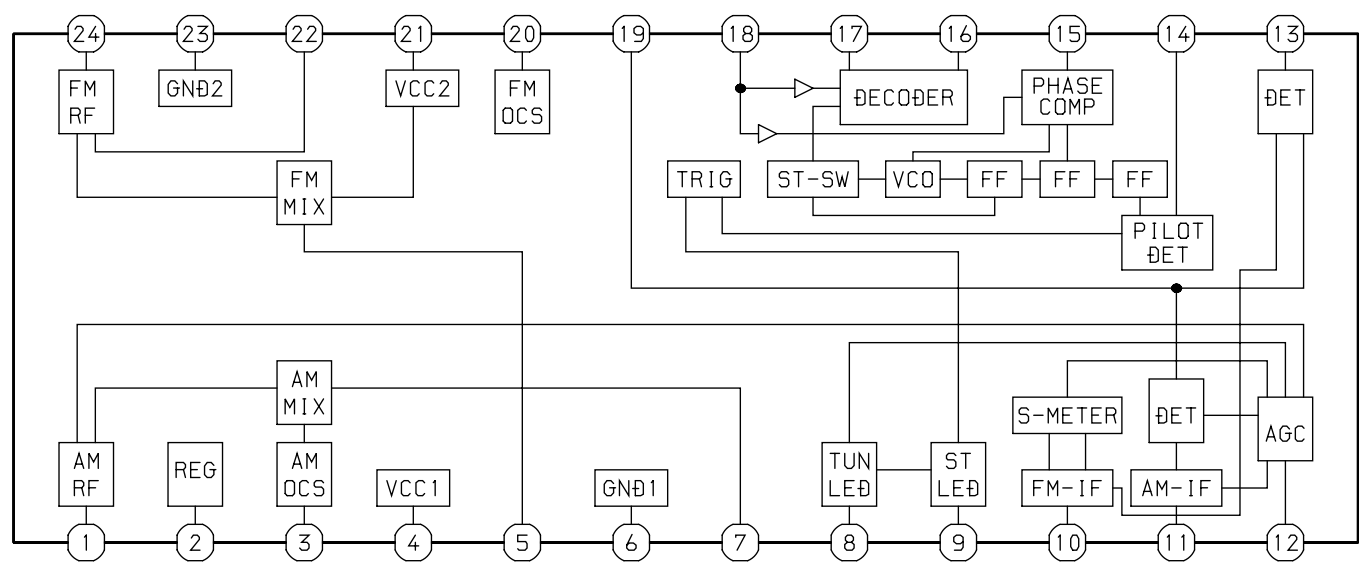
チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm)				抵抗コード : A Resistor Code : A
				外形／Form	L	W	t	
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

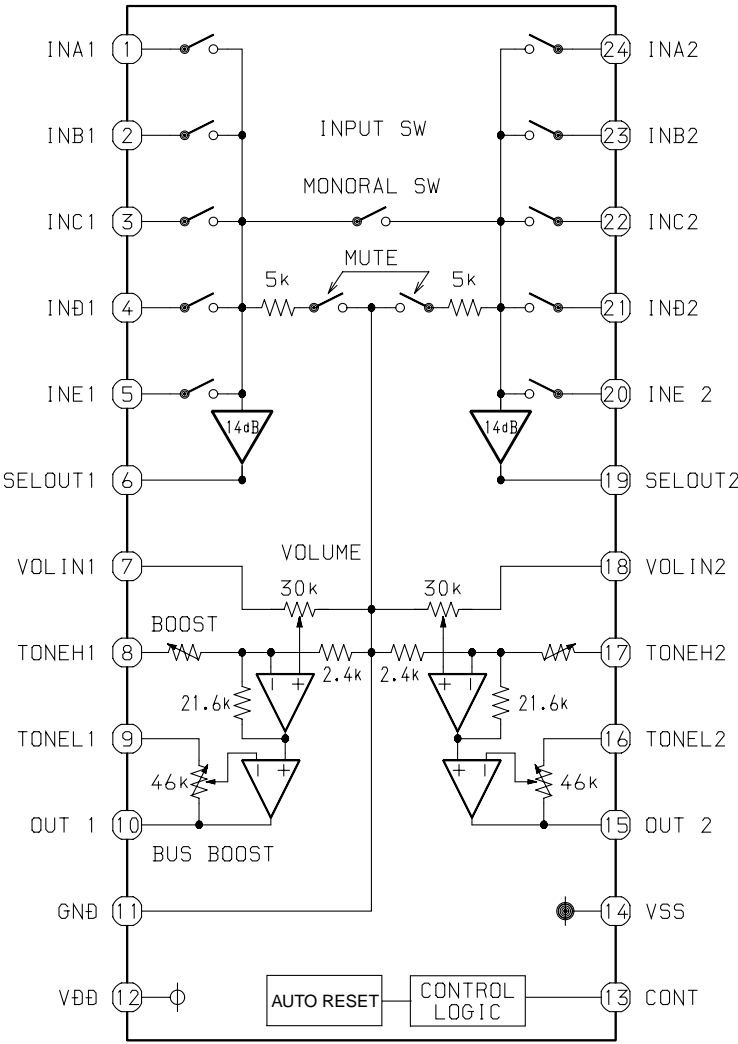
IC BLOCK DIAGRAM-1/2
IC, BA4560N



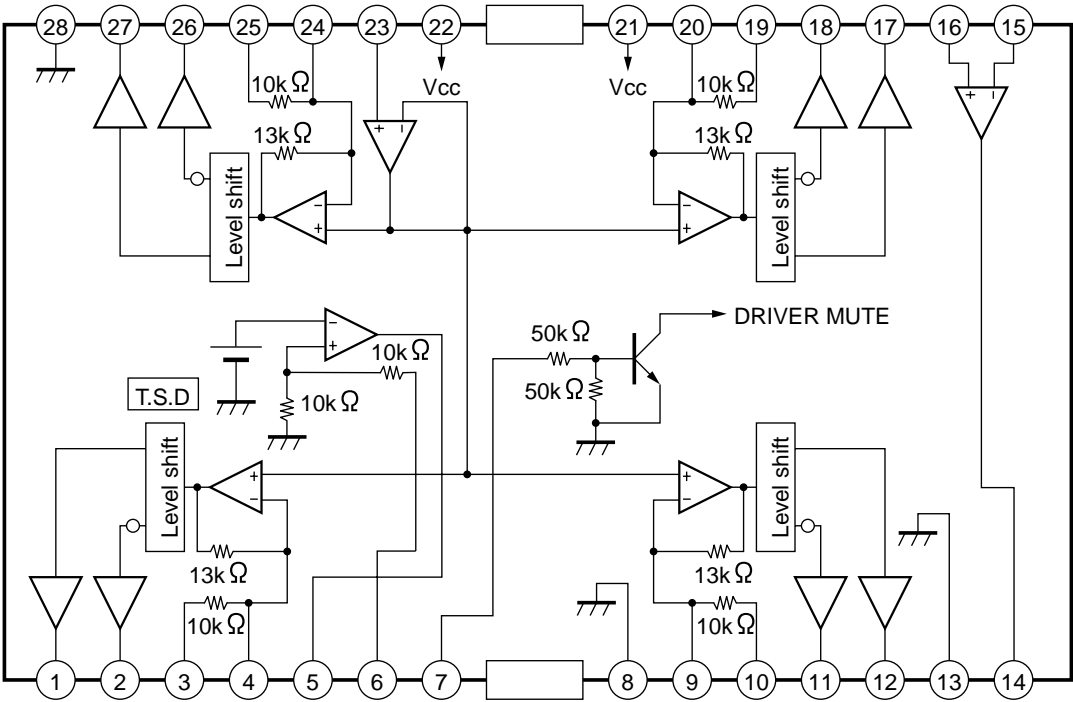
IC, LA1828

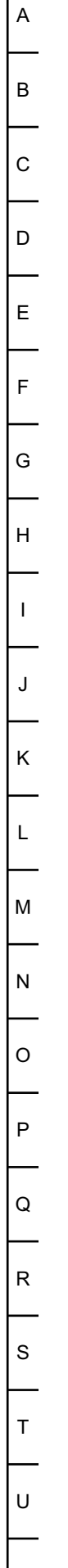


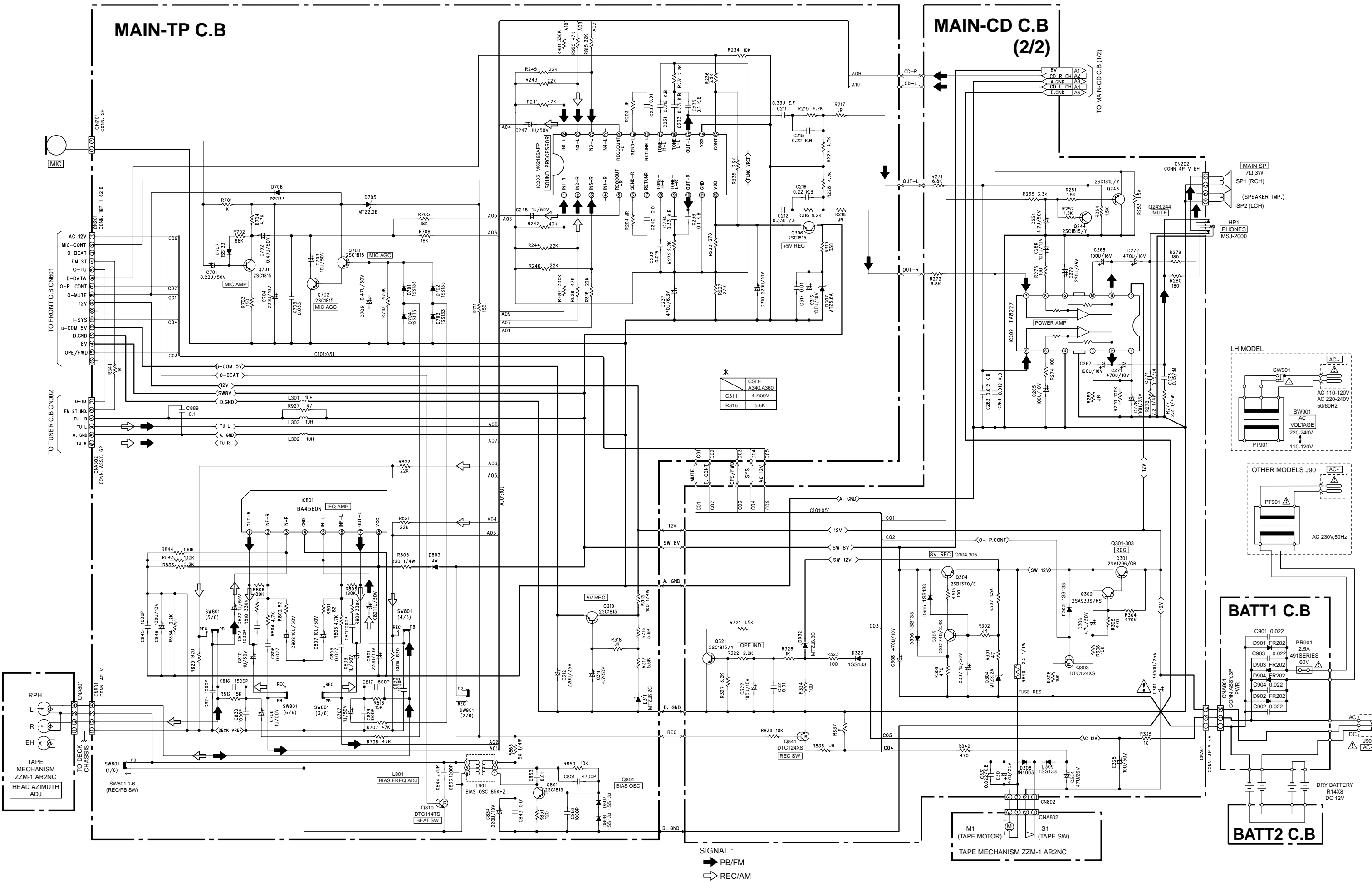
IC BLOCK DIAGRAM-2/2
IC, M62495AFP

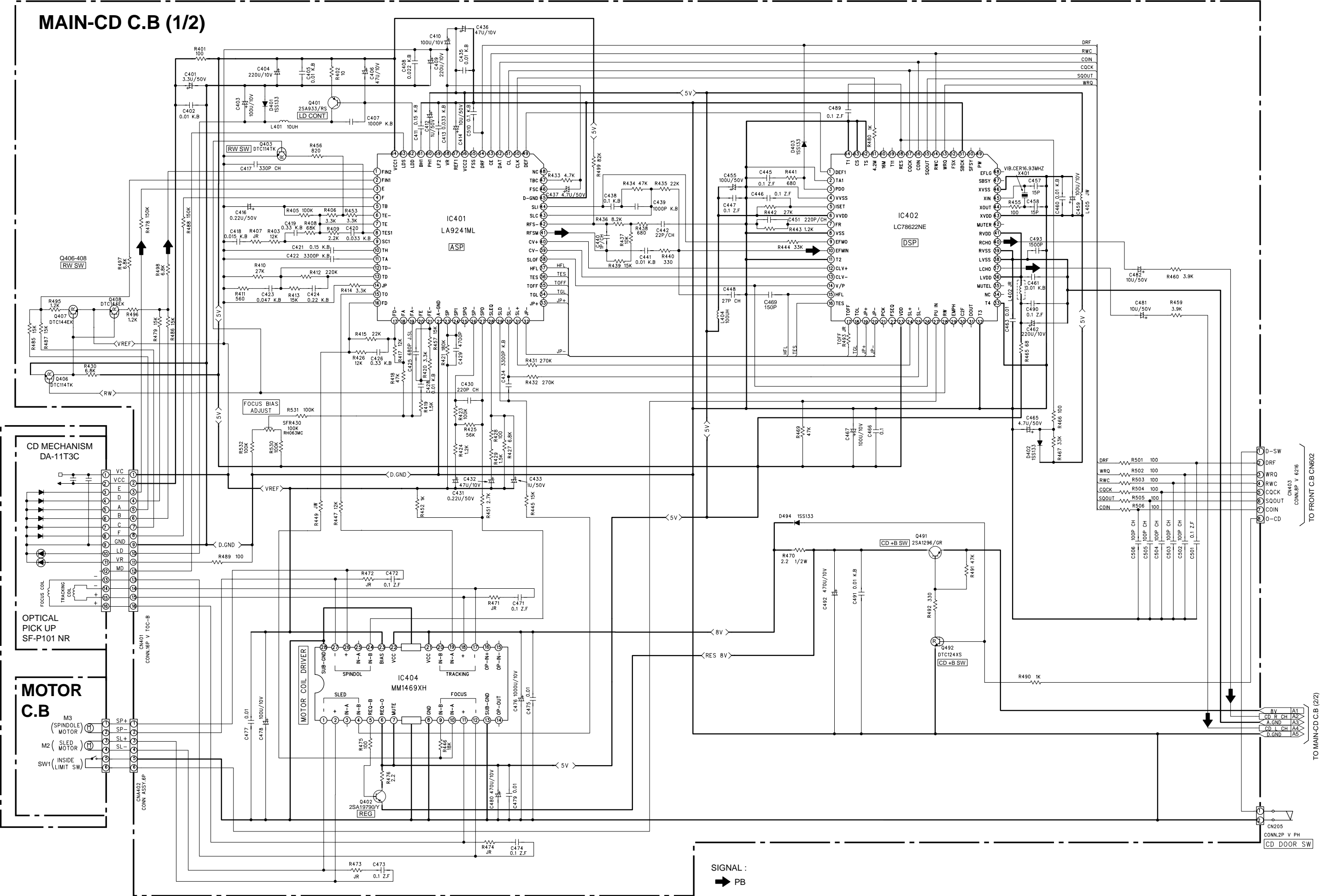


IC, MM1469XH



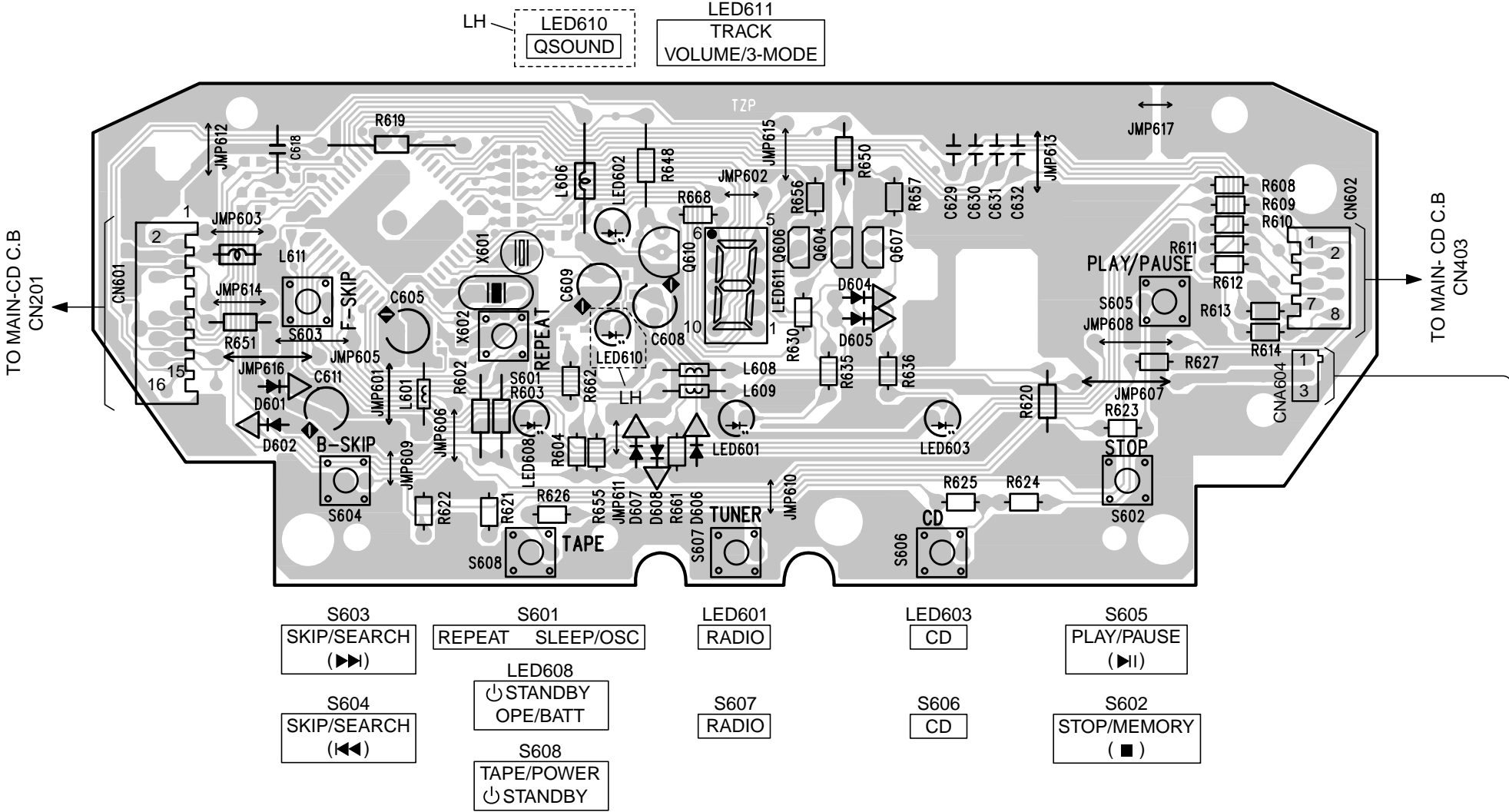




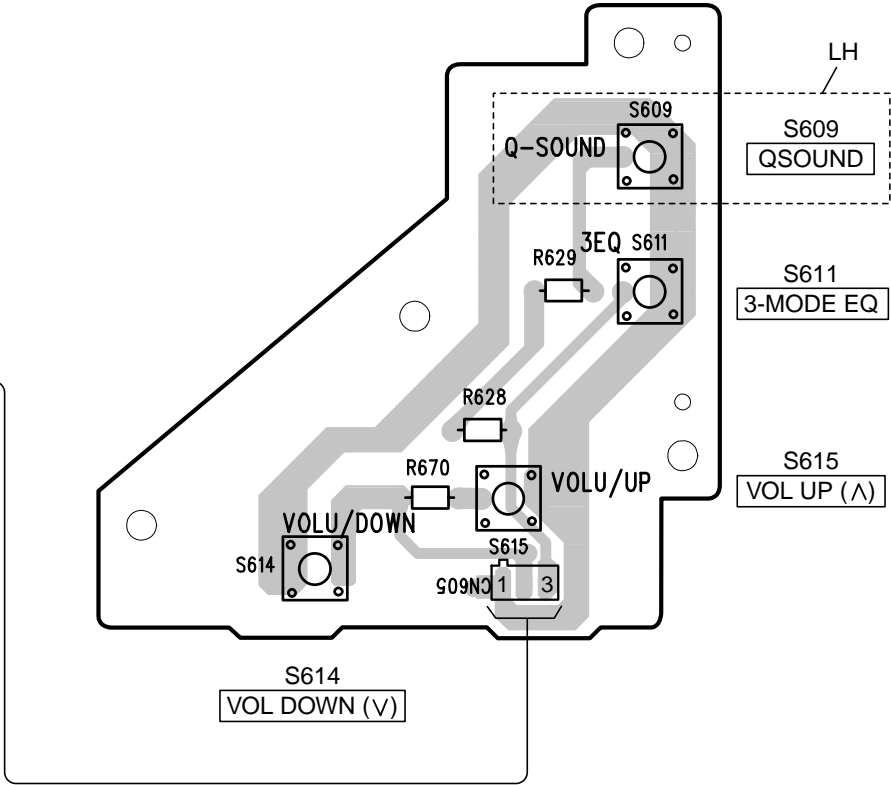


32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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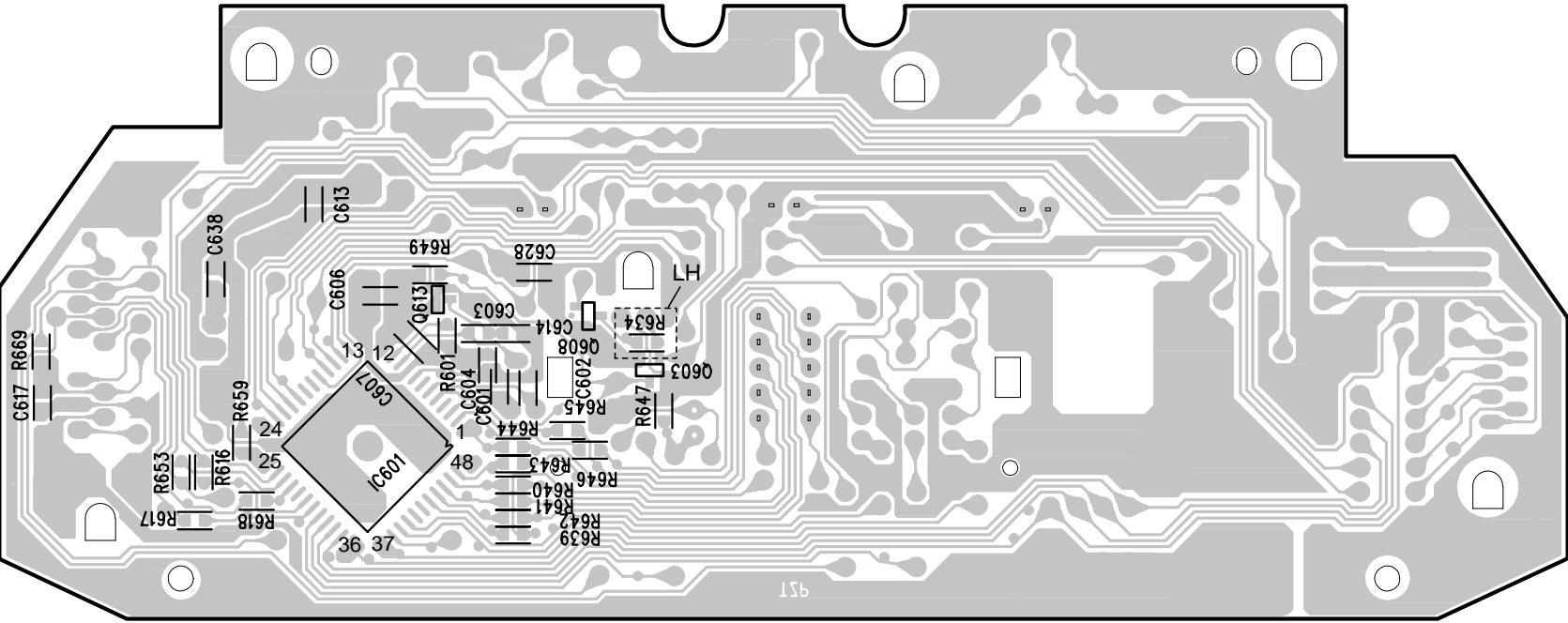
FRONT C.B (INSERTED PARTS)



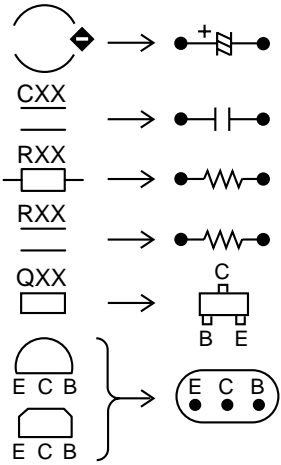
KEY C.B (INSERTED PARTS)

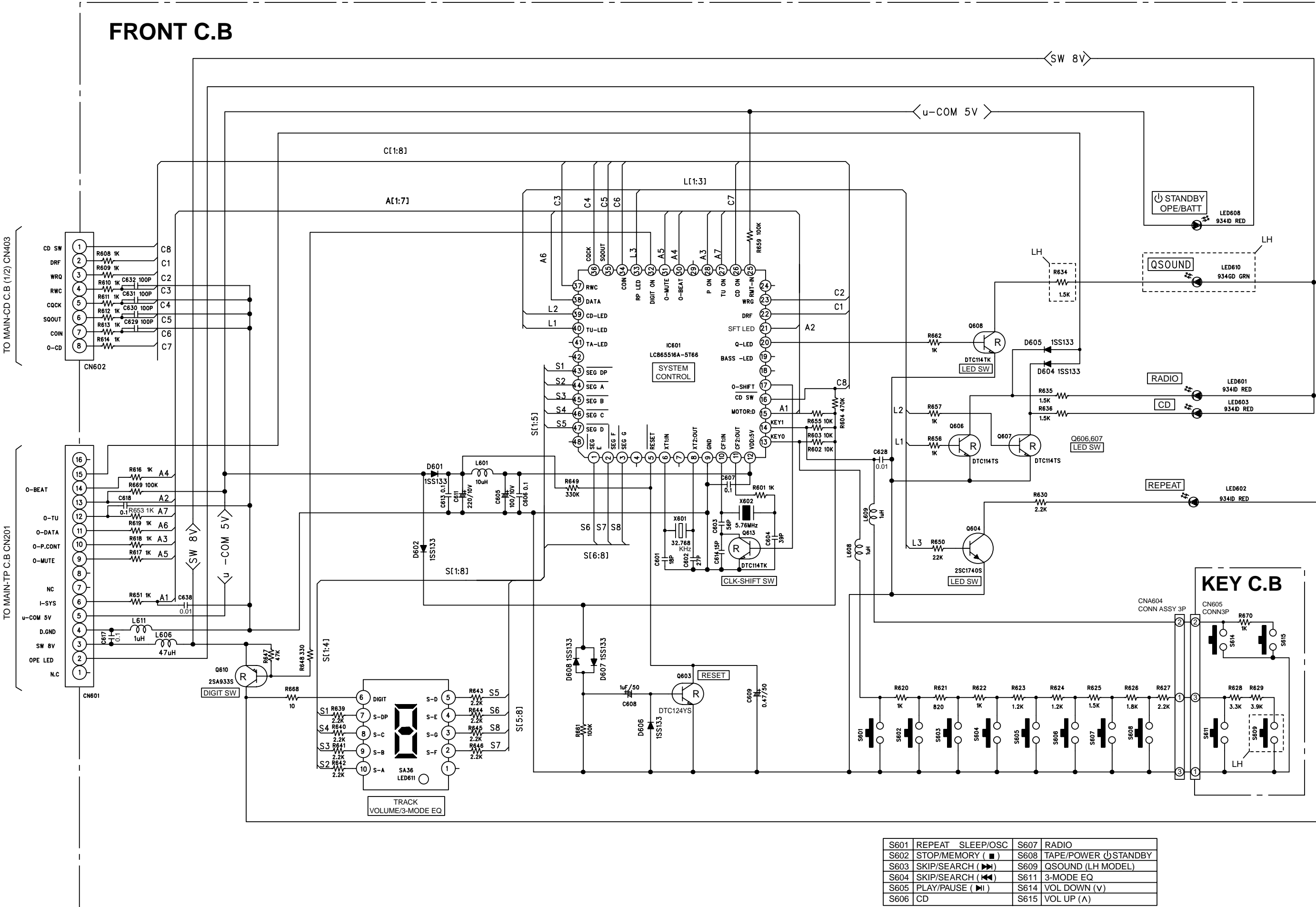


FRONT C.B (CHIP PARTS)

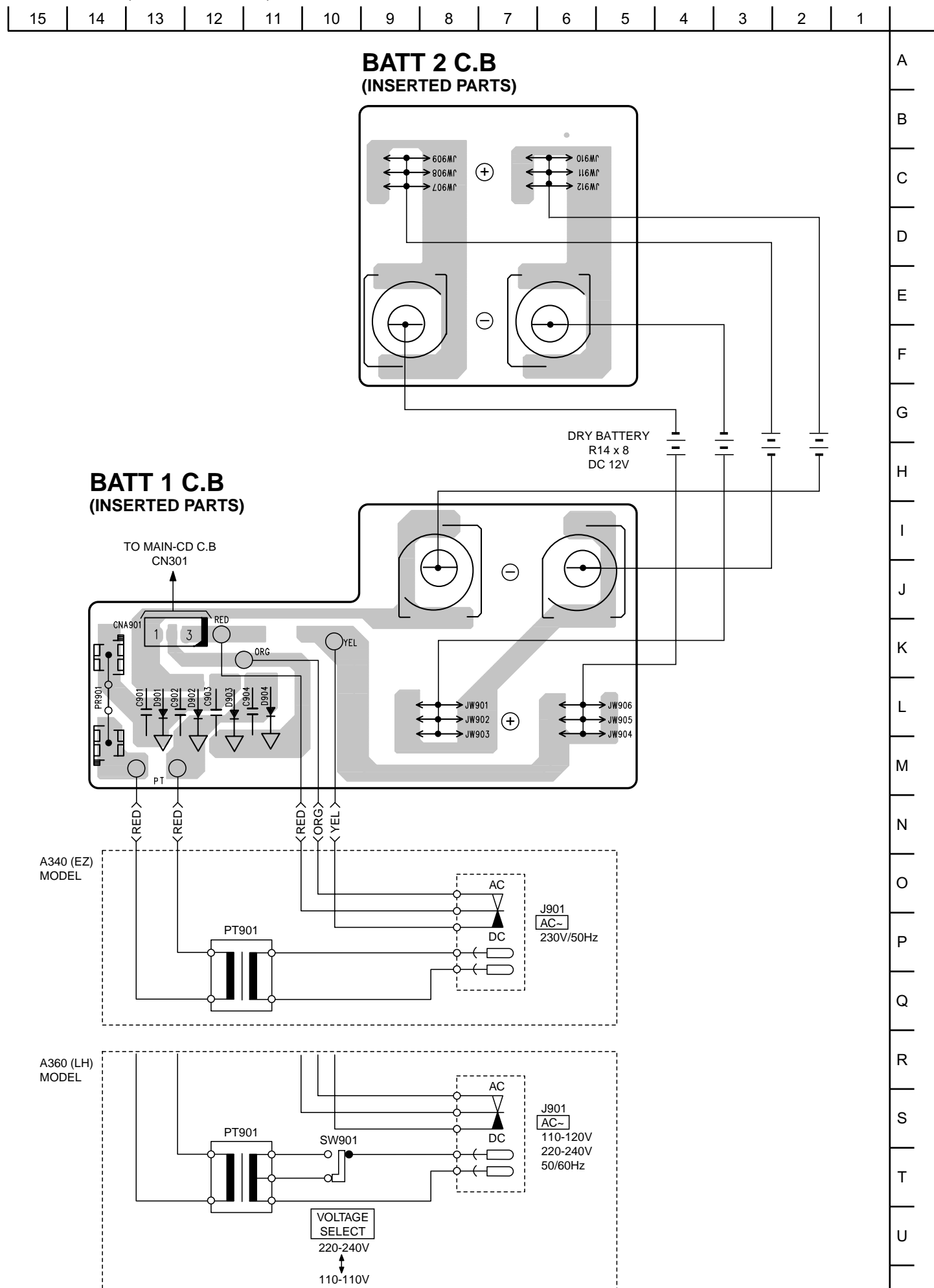


NOTE



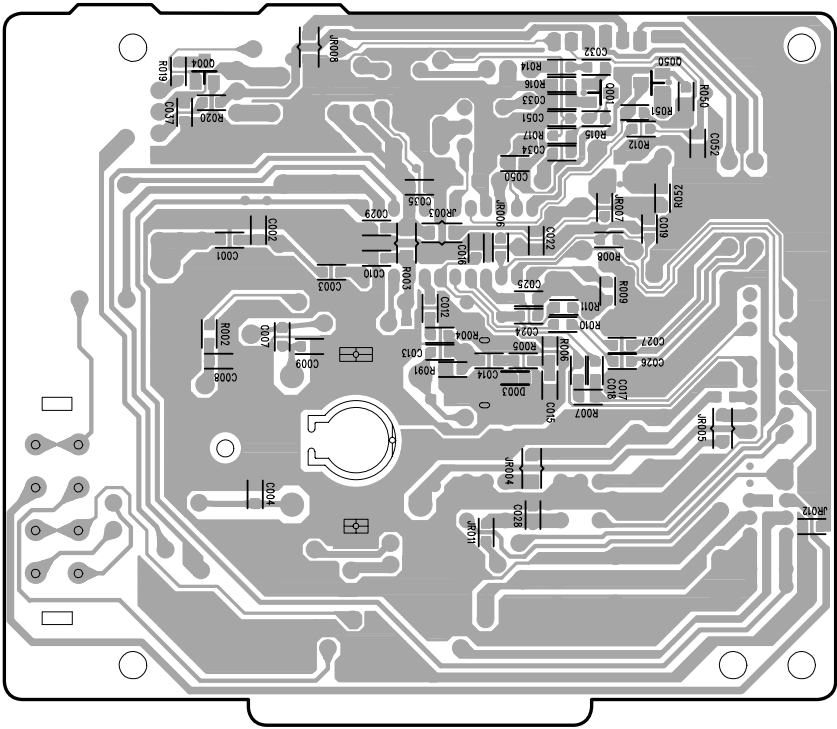
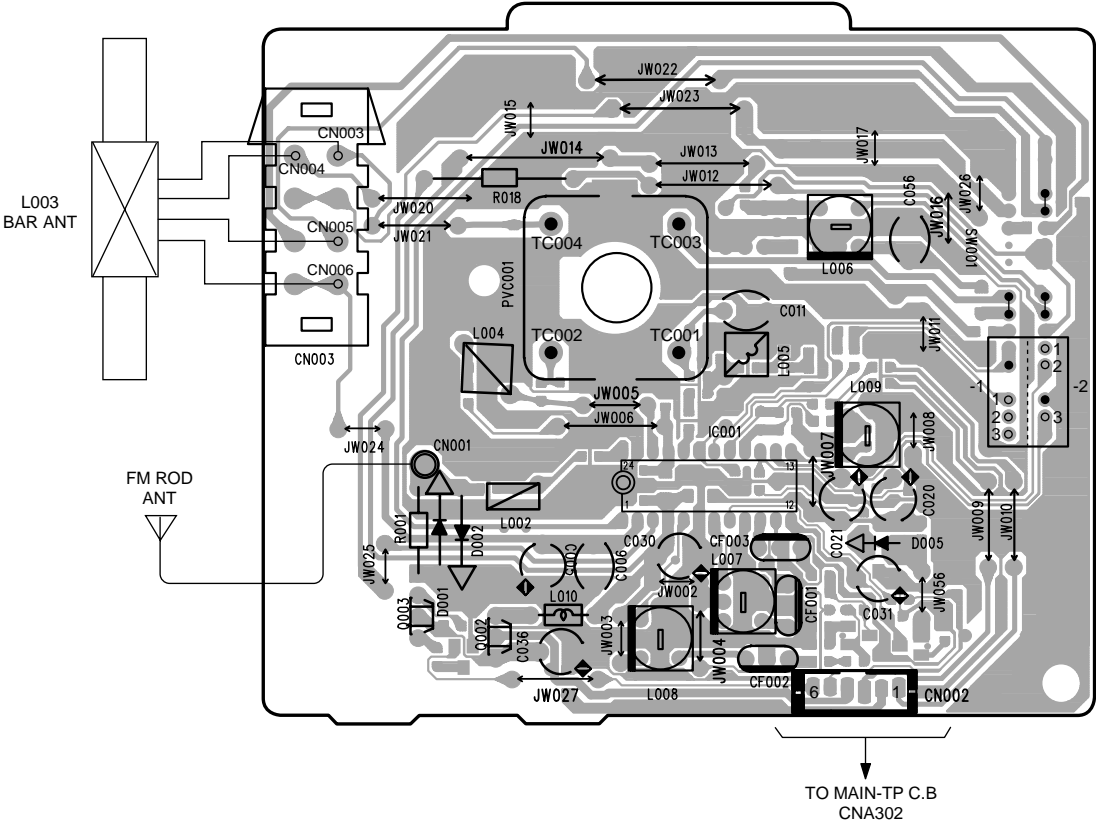


WIRING-4/6 (BATT1/BATT2)



15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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TUNER C.B (INSERTED PARTS)



TUNER C.B (CHIP PARTS)

NOTE

RXXX →

RXXX →

CXX →

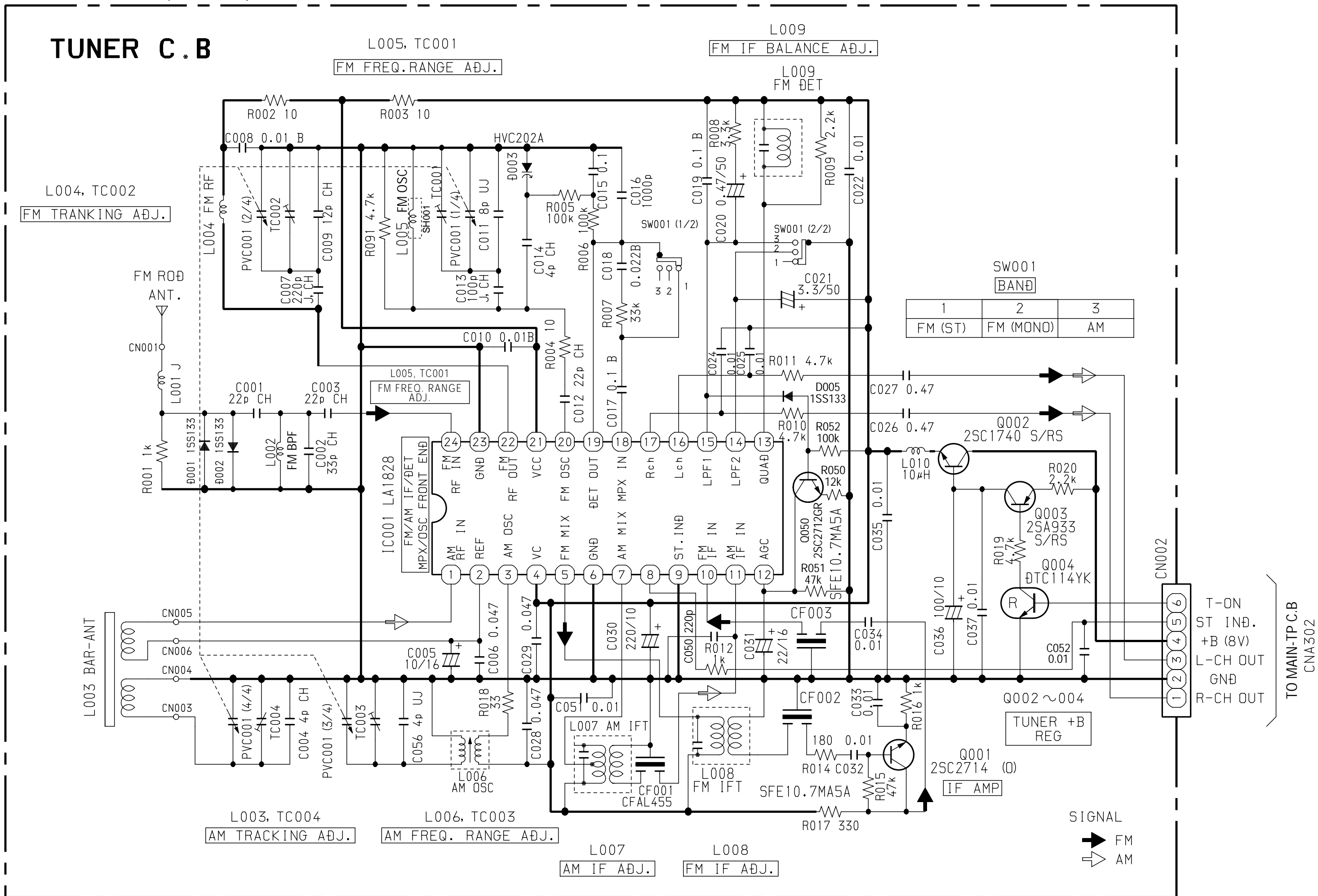
CXXX →

→

→

→

→



TRANSISTOR ILLUSTRATION-1/1



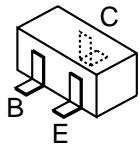
ECB
2SA1296
2SC1815



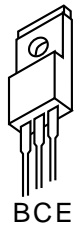
ECB
2SA933
2SC1740
DTC114TS
DTC114YS
DTC124XS



ECB
2SA1979



2SC2714
DTC114TK
DTC114YK
DTC144EK



BCE
2SB1370

VOLTAGE CHART-1/4

IC404 MM1469XH

PIN	1	2	3	4	5	6	7	8	9	10	11	12
ACTIVE	4.2	4.2	2.95	2.95	8.2	5.8	5.8	0	2.95	3.00	4.27	4.01
STATIC	3.61	3.62	2.54	2.54	7.24	5.02	5.02	0	2.55	2.55	3.61	3.63
PIN	13	14	15	16	17	18	19	20	21	22	23	24
ACTIVE	0	8.40	1.45	1.45	4.10	4.10	2.90	2.90	8.90	8.90	2.90	2.90
STATIC	0	7.39	0.78	0.8	3.63	3.62	2.54	2.55	7.96	7.96	2.55	2.55
PIN	25	26	27	28								
ACTIVE	2.90	4.50	3.71	0								
STATIC	2.54	3.61	3.62	0								

IC402 LC78622NE

PIN	1	2	3	4	5	6	7	8	9	10	11	12
ACTIVE	0	0	1.8	0	2.1	5.6	0.4	0	2.8	2.7	0	0.3
STATIC	0	0	0.01	0	1.85	4.98	0.07	0	2.52	2.41	0	0
PIN	13	14	15	16	17	18	19	20	21	22	23	24
ACTIVE	0	0	0	1.5	0	5.6	0	0	2.7	5.6	5.6	0
STATIC	0	5	0.01	0.04	5.01	5.01	0	0	2.48	0	5.02	0
PIN	25	26	27	28	29	30	31	32	33	34	35	36
ACTIVE	0	0	5.6	0	0	0	2.8	0	0	0	0	5.3
STATIC	0	5	5	0	0	4.95	2.48	0	0	0	5.02	4.77
PIN	37	38	39	40	41	42	43	44	45	46	47	48
ACTIVE	2.15	0	0	2.15	5.3	0	5.5	2.3	2.3	2.3	0.1	0
STATIC	1.94	0	0	1.95	4.77	5	5.02	2.08	2.06	0	0.08	2.27
PIN	49	50	51	52	53	54	55	56	57	58	59	60
ACTIVE	0.1	2.77	0	2.77	0.9	0	0	5.16	5	5.5	0	2.25
STATIC	0	2.50	0	2.50	0	0.07	0	4.71	4.71	5	0	2.02
PIN	61	62	63	64								
ACTIVE	2.66	0	0	0								
STATIC	2.41	0	0	0								

IC401 LA9241ML

PIN	1	2	3	4	5	6	7	8	9	10	11	12
ACTIVE	2.67	2.65	2.67	2.67	2.67	2.66	2.67	2.67	2.65	2.66	2.67	2.7
STATIC	2.53	2.53	2.53	2.56	2.53	2.55	2.55	2.55	2.54	2.52	2.55	2.54
PIN	13	14	15	16	17	18	19	20	21	22	23	24
ACTIVE	2.67	2.7	2.72	2.69	2.67	2.69	2.73	2.69	0	2.67	2.67	2.65
STATIC	2.55	2.54	2.54	2.54	2.55	2.55	2.54	2.54	2.54	0	2.53	2.54
PIN	25	26	27	28	29	30	31	32	33	34	35	36
ACTIVE	2.69	2.75	2.75	2.68	2.75	2.45	2.45	0	0	5.22	0	1.4
STATIC	2.56	2.56	2.5	2.55	2.55	2.33	2.34	0	0	5.01	5.01	0.04
PIN	37	38	39	40	41	42	43	44	45	46	47	48
ACTIVE	0	0	0	0.25	2.45	2.54	2.54	2.63	0	2.64	2.65	0
STATIC	0.01	5	0	0	1.61	2.45	2.41	2.53	0	2.54	2.55	0
PIN	49	50	51	52	53	54	55	56	57	58	59	60
ACTIVE	0	2.54	4.77	4.86	0	5.11	0.16	5.2	2.64	2.64	2.59	2.57
STATIC	0	2.44	4.71	4.71	0.07	0.03	0.14	5.01	2.54	2.56	0.98	0.99
PIN	61	62	63	64								
ACTIVE	2.3	3.86	0.19	5.18								
STATIC	2.24	4.35	0	5.02								

VOLTAGE CHART-2/4

IC203 M62495AFP

PIN	1	2	3	4	5	6	7	8	9	10	11	12
CD	2.54	2.55	2.55	0.7	2.54	2.56	2.55	2.55	2.55	2.55	2.56	5.08
TAPE	2.55	2.55	2.55	0.8	2.55	2.56	2.55	2.56	2.55	2.55	2.56	5.09
TUNER	2.56	2.56	2.56	2.56	2.57	2.57	2.57	2.57	2.56	2.57	2.57	5.11
PIN	13	14	15	16	17	18	19	20	21	22	23	24
CD	2.82	0	2.55	2.55	2.55	2.55	2.57	2.54	0.7	2.54	2.55	2.54
TAPE	2.83	0	2.55	2.55	2.56	2.55	2.57	2.55	0.58	2.06	2.56	2.55
TUNER	2.83	0	2.56	2.56	2.57	2.56	2.58	2.57	0.69	2.56	2.56	2.56

IC001 LA1828

PIN	1	2	3	4	5	6	7	8	9	10	11	12
FM	0.93	0	4.73	4.73	4.68	1.28	1.24	1.35	1.35	4.22	0.01	4.80
AM	0	0	4.88	4.88	4.88	0.28	1.24	1.36	1.36	0	3.20	4.88
PIN	13	14	15	16	17	18	19	20	21	22	23	24
FM	0.59	1.27	1.27	0	5.30	4.80	0.01	4.80	4.80	4.80	1.28	0.33
AM	0.30	1.25	1.25	0	5.30	4.88	0	4.88	4.88	4.88	1.26	1.26

IC801 BA4560N

PIN	1	2	3	4	5	6	7	8
TAPE	3.37	3.37	3.34	0	3.34	3.37	3.37	6.83
REC	3.38	3.39	3.35	0	3.35	3.39	3.38	6.82

IC202 TA8227

PIN	1	2	3	4	5	6	7	8	9	10	11	12
ACTIVE	12.31	6.57	12.00	0	0.56	0	0	0.56	6.65	12.00	6.46	13.10
STATIC	11.50	6.10	1.50	0	0.56	0	0	0.56	6.41	1.42	6.20	12.50

VOLTAGE CHART-3/4

IC601 LC865516A

PIN	1	2	3	4	5	6	7	8	9	10	11	12
TAPE	0.12	0.12	0.12	0.07	4.65	1.59	0	2.52	0	2.11	2.25	4.8
TUNER	0.12	0.11	0.11	0.03	4.7	1.64	0	2.58	0.02	4.40	4.9	4.9
CD	0.10	0.09	8.53	0.26	4.61	1.58	0	2.49	0	2.09	2.23	4.76
PIN	13	14	15	16	17	18	19	20	21	22	23	24
TAPE	4.99	4.99	0.9	0	0.03	1.2	4.8	0.03	5.23	0	0.04	0
TUNER	5.1	5.1	5.1	0	0.02	0	4.9	0.03	5.34	0	0.05	0
CD	5.06	5.06	5.07	4.84	0	0	4.76	0.01	5.2	0.01	0.01	0
PIN	25	26	27	28	29	30	31	32	33	34	35	36
TAPE	4.77	0.06	0.06	4.76	0	0.06	0.06	0.26	0.07	0.05	0.08	0.05
TUNER	4.86	0.05	4.9	4.87	0.06	0.06	0.06	0.16	0.06	0.05	0.09	0.05
CD	4.74	4.75	0.04	4.71	0	0.04	0	0.24	0.04	4.75	1.94	4.75
PIN	37	38	39	40	41	42	43	44	45	46	47	48
TAPE	0.05	0.06	0.05	0.05	4.79	0.34	9.54	0.12	9.55	0.12	0.12	2.3
TUNER	0.05	0.06	0.05	4.86	0.05	2.82	9.44	0.12	9.11	0.12	0.12	2.3
CD	0.03	0.04	4.72	0.03	0.03	2.39	6.11	0.1	0.11	0.1	0.1	2.2

NO.	Q002			Q003			Q004		
PIN	e	c	b	e	c	b	e	c	b
FM	4.82	8.00	5.52	5.53	5.52	4.85	0	4.06	2.98
AM	4.90	8.00	5.58	5.59	5.59	4.90	2.30	4.12	3.03

NO.	Q001		
PIN	e	c	b
FM	2.22	4.07	2.95
AM	2.21	4.06	2.95

NO.	Q403			Q406			Q407			Q408		
PIN	e	c	b	e	c	b	e	c	b	e	c	b
ACTIVE	2.56	2.56	0	0	4.6	0	4.6	2.57	2.56	4.6	2.57	2.56
STATIC	2.56	2.56	0	0	4.6	0	4.58	2.55	2.55	4.58	.55	2.55

NO.	Q401			Q402			Q491			Q492		
PIN	e	c	b	e	c	b	e	c	b	e	c	b
ACTIVE	4.46	2.11	3.76	7.87	5.3	7.17	7.91	7.88	7.15	0	0.14	4.41
STATIC	4.99	1.56	4.35	7.97	5.15	7.28	7.98	7.97	7.23	0	0.14	4.41

NO.	Q310			Q301			Q302			Q303		
PIN	e	c	b	e	c	b	e	c	b	e	c	b
ACTIVE	5.55	10.45	6.25	12.2	11.4	11.5	11.5	11.4	10.9	0	0	4.57
STATIC	5.56	10.83	6.26	12.66	12	11.99	11.99	12	11.32	0	0	4.57

NO.	Q305			Q244			Q243			Q321		
PIN	e	c	b	e	c	b	e	c	b	e	c	b
ACTIVE	7.23	10.56	7.85	0	0	0.12	0	0	0.12	0	0.01	0.6
STATIC	7.26	11.23	7.87	0	0	0.64	0	0	0.64	0	0.02	0.7

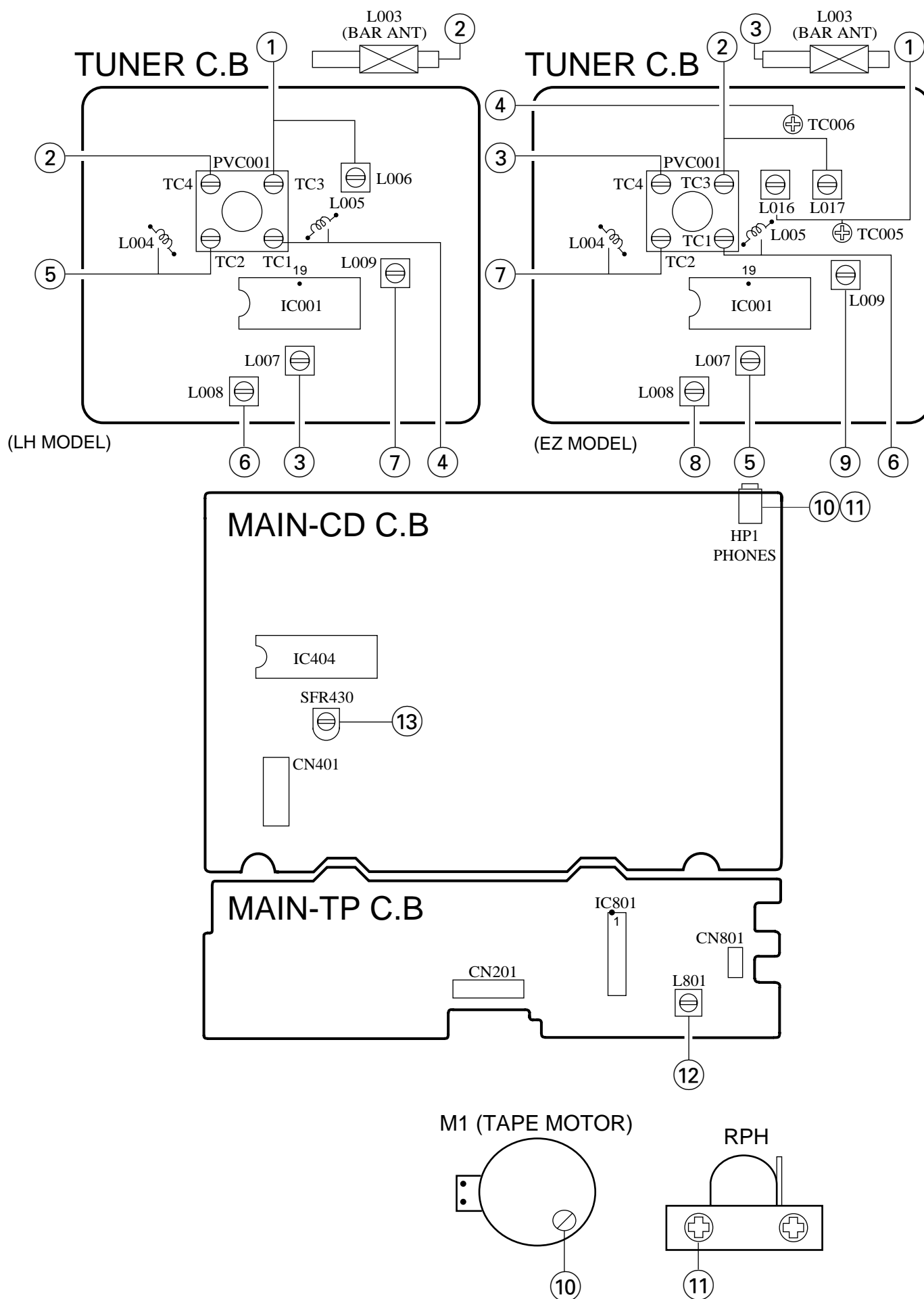
VOLTAGE CHART-4/4

NO.	Q306			Q304		
PIN	e	c	b	e	c	b
ACTIVE	5.08	7.94	10.75	11.38	7.94	10.75
STATIC	5.09	7.98	5.81	11.97	7.98	11.34

NO.	Q841			Q810			Q801			Q701		
PIN	e	c	b	e	c	b	e	c	b	e	c	b
TAPE	0	0.72	0	3.36	0.05	0.13	0	0	0	0	0	0
REC	0	0.01	5.73	3.38	13.85	0.13	1.64	5.90	2.31	0.14	1.15	0.78

NO.	Q702			Q703		
PIN	e	c	b	e	c	b
TAPE	0	0	0	0	0	0
REC	0	0.03	0.17	0.04	5.58	0.05

NO.	Q606			Q604			Q607		
PIN	e	c	b	e	c	b	e	c	b
TAPE	0.02	6.56	0.05	0.02	6.51	0.06	0.02	6.55	0.05
TUNER	0.02	0.04	4.46	0.02	6.51	0.06	0.02	6.54	0.05
CD	0.02	6.55	0.06	0.02	6.51	0.07	0.02	0.05	4.35



ELECTRICAL ADJUSTMENT-2/2

< TUNER SECTION >

(LH MODEL)

1. AM Freq. Range Adjustment
L006 517kHz
TC003 1750kHz
2. AM Tracking Adjustment
L003 600kHz
TC004 1400kHz
3. AM IF Adjustment
Settings: • Test point: IC001 (LA1828) 19PIN
 • Adjustment location: L007
Method: Adjust L007 so that the output level at 1400kHz becomes maximum.
4. FM Freq. Range Adjustment
L005 87.0MHz
TC001 109.0MHz
5. FM Tracking Adjustment
L004 90.0MHz
TC002 106.0MHz
6. FM IF Adjustment
Settings: • Test point: IC001 (LA1828) 19PIN
 • Adjustment location: L008
Method: Adjust L008 so that the output level at 98.0MHz becomes balanced.
7. FM Balance Adjustment
Settings: • Test point: IC001 (LA1828) 19PIN
 • Adjustment location: L009
Method: Adjust L009 so that the output level at 98.0MHz becomes balanced.

(EZ MODEL)

1. LW Freq. Range Adjustment
L016 145kHz
TC005 295kHz
2. MW Freq. Range Adjustment
L017 515kHz
TC003 1635kHz
3. MW Tracking Adjustment
L003 600kHz
TC004 1400kHz
4. LW Tracking Adjustment
TC006 288kHz
5. AM IF Adjustment
Settings: • Test point: IC001 (LA1828) 19PIN
 • Adjustment location: L007
Method: Adjust L007 so that the output level at 1400kHz becomes maximum.
6. FM Freq. Range Adjustment
L005 87.35MHz
TC001 108.25MHz

7. FM Tracking Adjustment
L004 88.0MHz
TC002 108.0MHz
8. FM IF Adjustment
Settings: • Test point: IC001 (LA1828) 19PIN
 • Adjustment location: L008
Method: Adjust L008 so that the output level at 98.0MHz becomes balanced.
9. FM Balance Adjustment
Settings: • Test point: IC001 (LA1828) 19PIN
 • Adjustment location: L009
Method: Adjust L009 so that the output level at 98.0MHz becomes balanced.

< DECK SECTION >

10. Tape Speed Adjustment
Settings : • Test tape : TTA-100
 • Test point : HP1 (PHONES jack)
 • Adjustment location : SFR of deck motor
Method : Play back the test tape and adjust SFR so that the frequency counter reads 3000Hz +90Hz, -60Hz.
11. Head Azimuth Adjustment
Settings : • Test tape : TTA-320
 • Test point : HP1 (PHONES jack)
 • Adjustment location : Azimuth adjustment screw
Method : Play back the 8kHz signal of the test tape and adjust screw so that the output becomes maximum.
12. Bias frequency Adjustment
L801 85kHz±2kHz

< CD SECTION >

13. FE Balance Adjustment
Settings : • Test point : IC401 PIN58 (VR), IC401 PIN 20 (FE)
 • Adjustment location : SFR430
Method : Playback the disc and adjust SFR430 so that the test point voltage becomes 0~-10mV.

IC DESCRIPTION-1/3 (LA9241ML)-1/2

Pin No.	Pin Name	I/O	Description
1	FIN2	I	Pin to which external pickup photo diode is connected. RF signal is created by adding with the FIN1 pin signal. FE signal is created by subtracting from the FIN1 pin signal.
2	FIN1	I	Pin to which external pickup photo diode is connected.
3	E	I	Pin to which external pickup photo diode is connected. TE signal is created by subtracting from the F pin signal.
4	F	I	Pin to which external pickup photo diode is connected.
5	TB	I	DC component of the TE signal is input.
6	TE-	I	Pin to which external resistor setting the TE signal gain is connected between the TE pin.
7	TE	O	TE signal output pin.
8	TESI	I	TES “Track Error Sense” comparator input pin. TE signal is passed through a band-pass filter then input.
9	SCI	I	Shock detection signal input pin.
10	TH	I	Tracking gain time constant setting pin.
11	TA	O	TA amplifier output pin.
12	TD-	I	Pin to which external tracking phase compensation constants are connected between the TD and VR pins.
13	TD	I	Tracking phase compensation setting pin.
14	JP	I	Tracking jump signal (kick pulse) amplitude setting pin.
15	TO	O	Tracking control signal output pin.
16	FD	O	Focusing control signal output pin.
17	FD-	I	Pin to which external focusing phase compensation constants are connected between the FD and FA pins.
18	FA	I	Pin to which external focusing phase compensation constants are connected between the FD– and FA– pins.
19	FA-	I	Pin to which external focusing phase compensation constants are connected between the FA and FE pins.
20	FE	O	FE signal output pin.
21	FE-	I	Pin to which external FE signal gain setting resistor is connected between the FE pin.
22	AGND	—	Analog signal GND.
23	SP	O	Signal ended output of the CV+and CV- pin input signal.
24	SPI	I	Spindle amp input.
25	SPG	I	Pin to which external spindle gain setting resistor in 12 cm mode is connected. (Not connected)
26	SP-	I	Pin to which external spindle phase compensation constants are connected together with SPD pin.
27	SPD	O	Spindle control signal output pin.
28	SLEQ	I	Pin to which external sled phase compensation constants are connected.
29	SLD	O	Sled control signal output pin.
30, 31	SL-, SL+	I	Sled advance signal input pin from microprocessor.
32, 33	JP-, JP+	I	Tracking jump signal input pin from DSP.
34	TGL	I	Tracking gain control signal input from DSP. Low gain when TGL = H.
35	TOFF	I	Tracking off control signal input pin from DSP. Off when TOFF = H.

IC DESCRIPTION-1/3 (LA9241ML)-2/2

Pin No.	Pin Name	I/O	Description
36	TES	O	Pin from which TES signal is output to DSP.
37	HFL	O	“High Frequency Level” is used to judge whether the main beam position is on top of bit or on top of mirror.
38	SLOF	I	Sled servo off control input pin.
39, 40	CV-, CV+	I	CLV error signal input pin from DSP.
41	RFSM	O	RF output pin.
42	RFS-	I	RF gain setting and EFM signal 3T compensation constant setting pin together with RFSM pin.
43	SLC	O	“Slice Level Control” is the output pin which controls the RF signal data slice level by DSP.
44	SLI	I	Input pin which control the data slice level by the DSP.
45	DGND	—	Digital system GND.
46	FSC	O	Output pin to which external focus search smoothing capacitor is connected.
47	TBC	I	“Tracking Balance Control” EF balance variable range setting pin.
48	NC	—	Not connected.
49	DEF	O	Disc defect detector output pin.
50	CLK	I	Reference clock input pin. 4.23 MHz of the DSP is input.
51	CL	I	Microprocessor command clock input pin.
52	DAT	I	Microprocessor command data input pin.
53	CE	I	Microprocessor command chip enable input pin.
54	DRF	O	“Detect RF” RF level detector output.
55	FSS	I	“Focus Search Select” focus search mode (\pm search/+ search) select pin. (Not connected)
56	VCC2	—	Servo system and digital system Vcc pin.
57	REFI	—	Pin to which external bypass capacitor for reference voltage is connected.
58	VR	O	Reference voltage output pin.
59	LF2	I	Disc defect detector time constant setting pin.
60	PH1	I	Pin to which external capacitor for RF signal peak holding is connected.
61	BH1	I	Pin to which external capacitor for RF signal bottom holding is connected.
62	LDD	O	APC circuit output pin.
63	LDS	I	APC circuit input pin.
64	VCC1	—	RF system Vcc pin.

IC DESCRIPTION-2/3 (LC78622NE)-1/2

Pin No.	Pin Name	I/O	Description	
1	DEFI	I	Defect sense signal (DEF) input pin. (Connect to 0V when not used).	
2	TAI	I	For PLL.	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.
3	PDO	O		Phase comparator output pin to control external VCO.
4	VVSS	—		GND pin for built-in VCO. Be sure to connect to 0V.
5	ISSET	I		Pin to which external resistor adjusting the PDO output current.
6	VVDD	—		Power supply pin for built-in VCO.
7	FR	I		Pin for VCO frequency range adjustment.
8	VSS	—	Digital system GND. Be sure to connect to 0V.	
9	EFMO	O	For slice level control.	EFM signal output pin.
10	EFMIN	I		EFM signal input pin.
11	T2	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.	
12, 13	CLV+, CLK-	O	Disc motor control output. Three level output is possible using command.	
14	V/P	O	Rough servo or phase control automatic selection monitoring output pin. Rough servo at H. Phase servo at L.	
15	HFL	I	Track detect signal input pin. Schmidt input.	
16	TES	I	Tracking error signal input pin. Schmidt input.	
17	TOFF	O	Tracking OFF output pin.	
18	TOL	O	Tracking gain selection output pin. Gain boost at L.	
19, 20	JP+, JP-	O	Track jump control signal output pin. Three level output is possible using command.	
21	PCK	O	EFM data playback clock monitoring pin 4.3218 MHz when phase is locked in. (Not connected)	
22	FSEQ	O	Sync signal detection output pin. H when the sync signal which is detected from EFM signal and thesync signal which is internally generated agree. (Not connected)	
23	VDD	—	Digital system power supply pin.	
24	SL+	O	Moves the sled to outer circumference.	
25	SL-	O	Moves the sled to inner circumference.	
26	—	—	Not connected.	
27	PUIN	I	CD pickup inner switch detection.	
28	RW	O	Read, wright signal.	
29	EMPH	O	De-emphasis monitor output pin. De-emphasis disc is being played back at H. (Not connected)	
30	C2F	O	C2 flag output pin. (Not connected)	
31	DOUT	O	DIGITAL OUT output pin. (EIAJ format). (Not connected)	
32, 33	T3, T4	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.	
34	N.C.	—	Not connected. Set the pin to open.	
35	MUTEL	O	L-channel 1-bit DAC.	L-channel mute output pin. (Not connected)
36	LVDD	—		L-channel power supply pin.
37	LCHO	O		L-channel output pin.
38	LVSS	—		L-channel GND. Be sure to connect to 0V.
39	RVSS	—	R-channel 1-bit DAC.	R-channel GND. Be sure to connect to 0V.
40	RCHO	O		R-channel output pin.
41	RVDD	—		R-channel power supply pin.
42	MUTER	O		R-channel mute output pin. (Not connected)

IC DESCRIPTION-2/3 (LC78622NE)-2/2

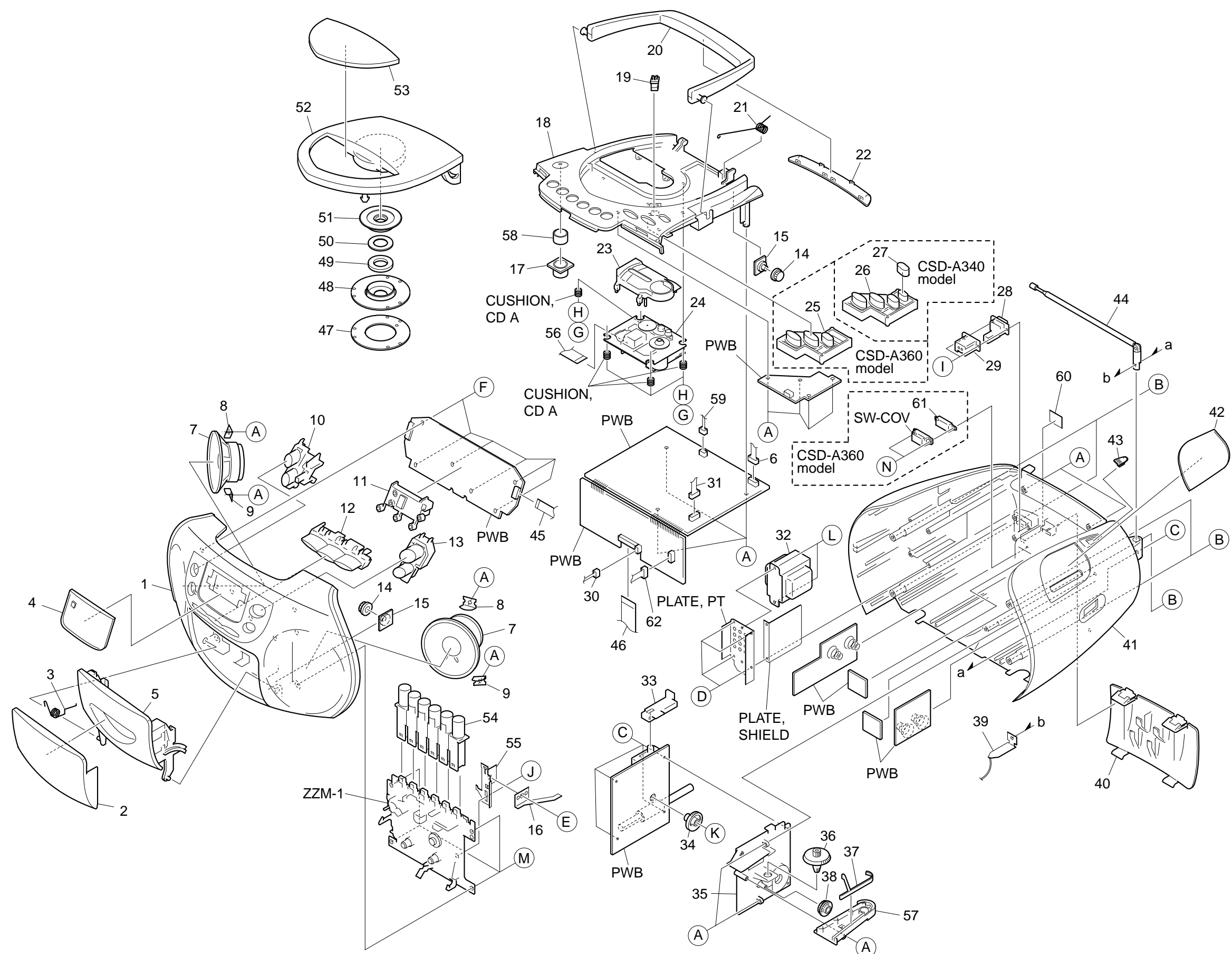
Pin No.	Pin Name	I/O	Description
43	XVDD	—	Crystal oscillator power supply pin.
44	XOUT	O	Pin to which external 16.9344 MHz crystal oscillator is connected.
45	XIN	I	
46	XVSS	—	Crystal oscillator GND pin. Be sure to connect to 0V.
47	SBSY	O	Subcode block sync signal output pin. (Not connected)
48	EFLG	O	C1, C2, single and dual correction monitoring pin. (Not connected)
49	PW	O	Subcode P, Q, R, S, T, U and W output pin. (Not connected)
50	SFSY	O	Subcode frame sync signal output pin. Falls down when subcode enters standby. (Not connected)
51	SBCK	I	Subcode read clock input pin. Schmidt input. (Be sure to connected to 0V when not in use.)
52	FSX	O	Pin outputting the 7.35 kHz sync signal which is generated by dividing frequency of crystal oscillator. (Not connected)
53	WRQ	O	Subcode Q output standby output pin.
54	RWC	I	Read/write control input pin. Schmidt input.
55	SQOUT	O	Subcode Q output pin.
56	COIN	I	Command input pin from microprocessor.
57	CQCK	I	Command input read clock or subcode read input clock from SQOUT pin
58	RES	I	LC78622 reset input pin. Set this pin to L once when the main power is turned on.
59	T11	O	Test signal output pin. Use this pin as open (normally L output). (Not connected)
60	16M	O	16.9344 MHz output pin. (Not connected)
61	4.2M	O	4.2336 MHz output pin.
62	T5	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.
63	CS	I	Chip select signal input pin with built-in pull-down resistor. Be sure to connect to 0V while it is not controlling.
64	T1	I	Test signal input pin without built-in pull-down resistor. Be sure to connect to 0V.

IC DESCRIPTION-3/3 (LC865516A-5T66)-1/2

Pin No.	Pin Name	I/O	Description
1	SEG E	O	SEG E control.
2	SEG F	O	SEG F control.
3	SEG G	O	SEG G control.
4	NC	—	Not connected.
5	RESET	I	Micro processor reset input
6	XT1 (IN)	I	Connected to an external 32.768 kHz crystal oscillator.
7	NC	—	Not connected.
8	XT2 (OUT)	O	Connected to an external 32.768 kHz crystal oscillator.
9	GND	—	GND.
10	CF1 (IN)	I	Connected to an external 5.76 MHz ceramic filter.
11	CF2 (OUT)	O	Connected to an external 5.76 MHz ceramic filter.
12	VDD	—	Microprocessor power supply (+5V).
13	KEY0	I	Key AD input. (AD)
14	KEY1	I	Key AD input. (AD)
15	MOTOR	I	Deck status input. (AD)
16	CD SW	I	CD door switch status input.
17	SHIFT	O	Main clock shift output.
18	NC	—	Not connected.
19	BASS LED	O	BASS LED ON/OFF control output. (Not connected)
20	Q LED	O	Q sound LED ON/OFF control output.
21	SFT LED	—	Not connected.
22	DRF	I	CD RF level detection input.
23	WRQ	I	CD subcode Q standby input.
24	NC	—	Not connected.
25	RMT-IN	—	Remote control input.
26	CD ON	O	CD power control output.
27	TU ON	O	TU power control output.
28	P ON	O	The main power supply control output.
29	NC	—	Not connected.
30	BEAT	O	Beat control.
31	MUTE	O	Main mute output.
32	DIGIT ON	O	7-segment LED power supply control output.
33	RP LED	O	REPEAT LED ON/OFF control output.
34	COIN	O	CD command output.
35	SQOUT	I	CD subcode Q input.
36	CQCK	O	CD command/CLK for subcode.
37	RWC	O	CD read/write control output.
38	DATA	O	Data output to M62349FP.
39	CD-LED	O	LED ON/OFF control output for the CD function.
40	TU-LED	O	LED ON/OFF control output for the TU function.
41	TA-LED	O	LED ON/OFF control output for the TA function. (Not connected)

IC DESCRIPTION-3/3 (LC865516A-5T66)-2/2

Pin No.	Pin Name	I/O	Description
42	NC	—	Not connected.
43	$\overline{\text{SEG DP}}$	O	SEG DP control.
44	$\overline{\text{SEG A}}$	O	SEG A control.
45	$\overline{\text{SEG B}}$	O	SEG B control.
46	$\overline{\text{SEG C}}$	O	SEG C control.
47	$\overline{\text{SEG D}}$	O	SEG D control.
48	NC	—	Not connected.



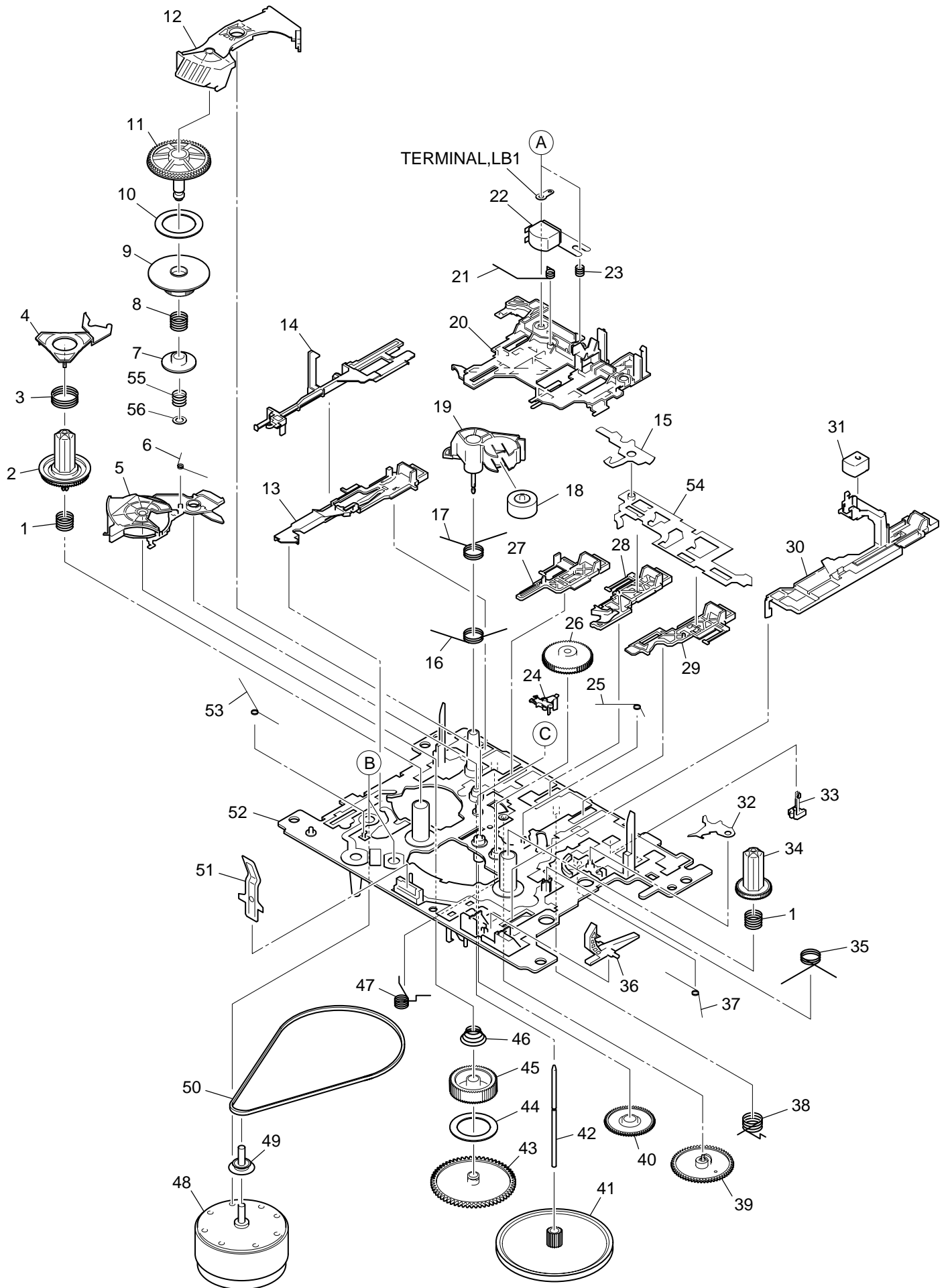
MECHANICAL PARTS LIST-1/1

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8B-CDB-142-010		CABI, ASSY FR EX (D) <6LHDC>	32	8A-CD8-604-010		PT, H 2.5W<EXCEPT 4EZLC>
1	8B-CDB-140-010		CABI, ASSY FR EX<6LHHC>	33	8B-CDB-202-010		LEVER, BAND
1	8B-CDB-143-010		CABI, ASSY FR EX (G) <6LHGC>	34	8B-CDB-205-010		DRUM, DIAL
1	8B-CDB-141-010		CABI, ASSY FR EX (L) <6LHLC, 4EZLC>	35	8B-CDB-203-010		CHAS, TU A
2	8B-CDB-008-010		WINDOW, CASS<6LHHC>	36	8B-CDB-020-010		KNOB, RTRY TU
2	8B-CDB-070-010		WINDOW, CASS (D) <6LHDC>				
2	8B-CDB-085-010		WINDOW, CASS (G) <6LHGC>	37	8B-CDB-021-010		POINTER, TU
2	8B-CDB-057-010		WINDOW, CASS (L) <6LHLC, 4EZLC>	38	8B-CDB-206-010		GEAR, IDLER
3	8B-CDB-207-010		SPR-T, CASS	39	8B-CDB-211-010		HLDR, ANT
4	8B-CDB-029-010		WINDOW, DISP EX<6LHHC, 6LHLC>	40	8B-CDB-004-010		LID, BATT
4	8B-CDB-073-010		WINDOW, DISP EX (D) <6LHDC>	41	8B-CDB-025-010		CABI, REAR EZ<4EZLC>
4	8B-CDB-088-010		WINDOW, DISP EX (G) <6LHGC>	41	8B-CDB-024-010		CABI, REAR U<EXCEPT 4EZLC>
4	8B-CDB-042-010		WINDOW, DISP W/O Q EX<4EZLC>	42	8B-CDB-031-010		WINDOW, DIAL EZ<4EZLC>
5	8B-CDB-007-010		BOX, CASS	42	8B-CDB-030-010		WINDOW, DIAL U<EXCEPT 4EZLC>
6	8B-CDB-615-010		CONN ASSY, 4P V SP	43	8B-CDB-019-010		KNOB, SL BAND
7	8A-CD8-612-010		SPKR, 77 70HM 6W	44	87-A91-857-010		ANT, ROD 5SEC709
8	8B-CDB-209-010		HLDR, SPKR A	45	8B-CDB-618-010		FF-CABLE, 8P 1MM 350MM
9	8B-CDB-210-010		HLDR, SPKR B	46	8B-CDB-617-010		FF-CABLE, 16P 1MM 300MM
10	8B-CDB-017-010		KEY, SKIP	47	8Z-CH4-212-110		RING, CHUCK
11	8B-CDB-201-010		HLDR, DISP	48	8Z-CH4-211-110		BASE, CHUCK
12	8B-CDB-015-010		KEY, FUNC<6LHHC>	49	87-036-368-010		MAGNET
12	8B-CDB-078-010		KEY, FUNC (D) <6LHDC>	50	84-CD5-217-010		PLATE, MAGNET
12	8B-CDB-093-010		KEY, FUNC (G) <6LHGC>	51	8Z-CH4-225-210		HLDR, CHUCK A(S)
12	8B-CDB-062-010		KEY, FUNC (L) <6LHLC, 4EZLC>	52	8B-CDB-026-010		BOX, CD EX
13	8B-CDB-016-010		KEY, PLAY	53	8B-CDB-009-010		WINDOW, CD<6LHHC>
14	84-CD5-215-010		GEAR	53	8B-CDB-071-010		WINDOW, CD (D) <6LHDC>
15	84-CD5-216-010		BRACKET	53	8B-CDB-086-010		WINDOW, CD (G) <6LHGC>
16	8B-CDB-212-010		SPR-P, REC	53	8B-CDB-058-010		WINDOW, CD (L) <6LHLC, 4EZLC>
17	8Z-CS3-215-010		HLDR, MIC	54	8B-CDB-014-010		KEY, CASS SET<6LHHC>
18	8B-CDB-081-010		CHAS, CD (G) <6LHGC>	54	8B-CDB-077-010		KEY, CASS SET (D) <6LHDC>
18	8B-CDB-027-010		CHAS, CD EX<6LHHC>	54	8B-CDB-092-010		KEY, CASS SET (G) <6LHGC>
18	8B-CDB-067-010		CHAS, CD EX (D) <6LHDC>	54	8B-CDB-061-010		KEY, CASS SET (L) <6LHLC, 4EZLC>
18	8B-CDB-054-010		CHAS, CD EX (L) <6LHLC>	55	8A-CD9-224-010		HLDR, REC ZZM1
18	8B-CDB-056-010		CHAS, CD W/O Q EX (L) <4EZLC>	56	8A-CD9-621-010		FF-CABLE, 16P CD-RF
19	87-036-389-010		SW, PUSH 1-1-1 R8120125	57	8B-CDB-204-010		CHAS, TU B<EXCEPT 4EZLC>
20	8B-CDB-012-010		HANDL, FR<6LHHC>	58	84-TM1-639-010		ECM, KUC3523
20	8B-CDB-075-010		HANDL, FR (D) <6LHDC>	59	8A-CD9-626-010		CONN ASSY, 2P DOOR
20	8B-CDB-090-010		HANDL, FR (G) <6LHGC>	60	8B-CDB-033-010		PLATE, SW (PC) <4EZLC>
20	8B-CDB-059-010		HANDL, FR (L) <6LHLC, 4EZLC>	61	87-A91-369-010		SW, AC SL 2 2 2 SDKGA41700<EXCEPT 4EZLC>
21	8B-CDB-208-010		SPR-T, CD	62	8A-CD9-630-010		CONN ASSY, 4P RPH
22	8B-CDB-013-010		HANDL, REAR<6LHHC>	A	87-254-097-410		U+3-12 CR
22	8B-CDB-076-010		HANDL, REAR (D) <6LHDC>	B	87-B10-242-010		UT2+3-30 W/O CR
22	8B-CDB-091-010		HANDL, REAR (G) <6LHGC>	C	87-741-095-410		UT2+3-8 GLD
22	8B-CDB-060-010		HANDL, REAR (L) <6LHLC, 4EZLC>	D	87-B10-269-010		UT2+3-12 W/O CR
23	8Z-CDB-169-110		PANEL, CD SANYO	E	87-571-094-410		TAPPING SCREW, VIT+3-6 (GLD)
24	M8-ZZK-E90-070		DA11T3C	F	87-B10-239-010		QT2+3-8 W/O CR
25	8B-CDB-043-010		KEY, VOL W/O Q<4EZLC>	G	87-342-074-010		UT2+2.6-8
26	8B-CDB-018-010		KEY, VOL<EXCEPT 4EZLC>	H	87-WA5-253-010		W, 3.3-10-0.8
27	8B-CDB-022-010		KEY, Q SOUND<6LHHC, 6LHLC>	I	87-353-076-210		VT2+2.6-12
27	8B-CDB-079-010		KEY, Q SOUND (D) <6LHDC>	J	8A-CDA-222-010		S-SCREW, CASS+2.6-4
27	8B-CDB-094-010		KEY, Q SOUND (G) <6LHGC>	K	87-251-073-410		SCREW, U+2.6-6
28	87-A60-178-010		JACK, AC E W/SW	L	87-067-566-010		TAPPING SCREW, VFTT+3-6
29	8Z-CD5-634-010		COVER, AC SOCKET	M	87-741-096-410		UT2+3-10
30	8B-CDB-614-010		CONN ASSY, 2P V MIC	N	87-352-075-210		UT2+2.6-10<EXCEPT 4EZLC>
31	8A-CD9-631-010		CONN ASSY, 4P TP-ME				
32	8A-CD8-603-010		PT, E 2.5W<4EZLC>				

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange	GM	Metallic Green
YM	Metallic Yellow	DM	Metallic Orange	PT	Transparent Pink
LA	Aqua Blue	GL	Light Green		

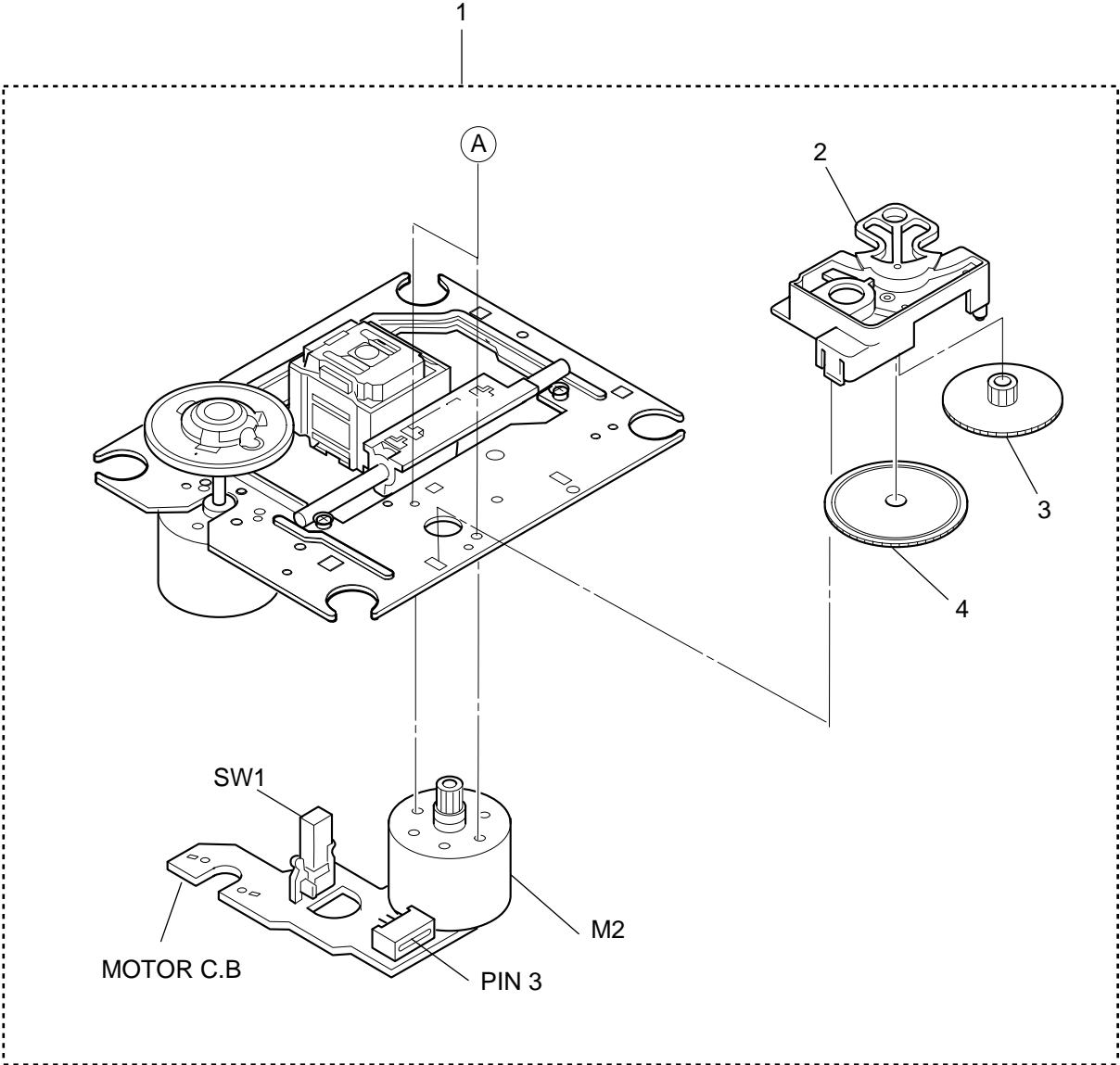
TAPE MECHANISM EXPLODED VIEW-1/1 (ZZM-1 AR2NC)



TAPE MECHANISM PARTS LIST-1/1 (ZZM-1 AR2NC)

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-ZM1-254-310		SPR-C, REEL R	31	87-A91-819-010		HEAD, EH 2NSS-2200
2	8Z-ZM1-225-110		GEAR, REEL R	32	8Z-ZM1-215-010		LEVER, REC LOCK
3	8Z-ZM1-253-210		SPR-C, AUTO SENSOR	33	87-A91-492-010		SW, LEAF MSW18560
4	8Z-ZM1-217-110		LEVER, AUTO SENSOR	34	8Z-ZM1-226-010		GEAR, REEL L
5	8Z-ZM1-212-110		LEVER, T-UP	35	8Z-ZM1-241-210		SPR-T, PLAY
6	8Z-ZM1-245-310		SPR-T, AUTO	36	8Z-ZM1-220-110		LEVER, REC SENSOR
7	8Z-ZM1-236-010		CLR, SLIP FF/REW	37	8Z-ZM1-249-210		SPR-T, FR
8	8Z-ZM1-252-110		SPR-C, FF/REW	38	8Z-ZM1-242-310		SPR-T, FF/REW
9	8Z-ZM1-230-010		GEAR, SLIP FF/REW A	39	8Z-ZM3-244-010		GEAR, CAM TD20
10	8Z-ZM1-269-010		FELT, FF/REW 2	40	8Z-ZM1-232-010		GEAR, IDL FF/REW
11	8Z-ZM1-238-110		GEAR, SLIP FF/REW B 2	41	8Z-ZM3-228-110		FLY-WHL, M3
12	8Z-ZM1-237-110		LEVER, FF/REW 2	42	8Z-ZM1-267-110		SHAFT, CAPSTAN 2
13	8Z-ZM1-283-010		LEVER, PAUSE 2	43	8Z-ZM1-228-010		GEAR, SLIP T-UP B
14	8Z-ZM1-222-010		LEVER, E-LOCK M	44	8Z-ZM1-265-010		FELT, T-UP
15	8Z-ZM1-219-010		LEVER, E-OPEN	45	8Z-ZM1-227-010		GEAR, SLIP T-UP A
16	8Z-ZM1-244-110		SPR-T, T-UP	46	8Z-ZM1-251-210		SPR-C, T-UP SLIP
17	8Z-ZM1-247-310		SPR-T, PINCH	47	8Z-ZM1-243-310		SPR-T, STOP/PAUSE
18	8Z-ZM1-261-110		ROLLER ASSY, PINCH	48	87-A91-825-010		MOT, M09Y/Z
19	8Z-ZM1-221-210		LEVER, PINCH	49	8Z-ZM1-271-010		PULLEY, MOT ZZM-1
20	8Z-ZM1-205-310		LEVER, PLAY	50	8Z-ZM1-264-010		BELT, MAIN S
21	8Z-ZM1-248-210		SPR-T, BRG	51	8Z-ZM1-260-010		SPR-P, CASSETTE
22	87-A91-830-010		HEAD, RP-7442	52	8Z-ZM1-201-610		CHAS ASSY, ZZM-1
23	84-ZM2-227-310		SPR-C, AZIMUTH	53	8Z-ZM1-255-310		SPR-T, E-LOCK
24	8Z-ZM1-216-110		LEVER, AUTO	54	8Z-ZM1-214-210		LEVER, LOCK
25	8Z-ZM1-246-110		SPR-T, AUTO 2	55	8Z-ZM1-257-110		SPR-C, F/R
26	8Z-ZM1-233-110		GEAR, IDL REW	56	8Z-ZM1-275-010		W-L, 1.47-4-0.25
27	8Z-ZM1-208-010		LEVER, STOP	A	84-ZM2-242-010		S-SCREW, AZ1-2-6.4
28	8Z-ZM1-207-010		LEVER, FF	B	8Z-ZM1-270-110		V+2.6 ZZM-1
29	8Z-ZM1-206-010		LEVER, REW	C	87-B10-301-010		W-L, 1.63-3.2-0.5 SLIT
30	8Z-ZM1-211-210		LEVER, REC 2				

CD MECHANISM EXPLODED VIEW-1/1 (DA-11T3C)



CD MECHANISM PARTS LIST-1/1 (DA-11T3C)

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	M8-ZZK-E90-070		DA11T3C
2	S2-121-A28-400		COVER GEAR
3	S2-511-A21-000		GEAR MIDDLE
4	S2-511-A21-100		GEAR, DRIVE
A	S1-PN2-03R-05E		SCR PAN PCS 2-3

ACCESSORIES/PACKAGE LIST-1/1

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8B-CDB-906-010		IB,EZ (9L)B<4EZLC>
1	8B-CDB-902-010		IB,LH (ESP)B<EXCEPT 4EZLC>
2	87-A80-081-010		AC CORD SET ASSY,EZ BLK



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